

Beaver Dam - White River, Arkansas

U.S. Army Corps of Engineers Little Rock District

Beaver Dam Secant Pile Wall Completion Report

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BEAVER DAM SECANT PILE WALL COMPLETION REPORT	. VOLUME DTIC	
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DISTRIBUTION OF THIS DOCUMENT IS UNLIMITED.	12. SPONSORING MILITARY ACTIVITY	
	LITTLE ROCK DISTRICT	
IJ. ABSTRACT		
The report presents a comprehensive project histo Beaver Lake (located near Eureka Springs, in nort against Dike 1, which produced observable surface Dike 1. Seepage continued to increase due to lim combined with removal of colloidal sized soil mat rock zones, particularly along two faults that for pervasive seepage distress evolved until a muddy "pool of record" event in December 1984, and ulti project. The selected method for alleviating the 1,475-foot-long concrete diaphragm wall located i penetrating to depths of 80 to 185 feet. Utilizi proposals/technical evaluation/price negotiation was accomplished by two separate joint venture contractor performed site preparation and construct the contractor failed to complete the project be equipment could not excavate the proposed overlap compressive strength unweathered rock that typica construct the wall resulted in the first contract Government. The second contractor, after overcom completed the wall using a large diameter down-the excavation. A total of 739 overlapping, 34-inch centers. The shafts were filled with concrete us creating a continuous concrete secant pile wall worms completed wall successfully eliminated all observation in the proposed of \$33,535, and approximate cost of \$3	nwest Arkansas, U.S.A.) impoundment seepage from five areas downstream of estone rock weathering and solutioning, erial from the overburden and weathered rmed a graben beneath Dike 1. The water boil was discovered during a mately warranted a remedial construction seepage distress consisted of a mmediately upstream of Dike 1 and ng a request for contractual process, the construction ntractors under two contracts. The first cted an upstream work platform; however, ause the specialized rock mill excavation ping trench segments into the high lly exceeded 15,000 psi. The inability to being terminated for convenience to the ing shaft excavation instability problems, e-hole air percussion hammer drill for diameter shafts were drilled on 24-inch ing the gravity tremie method; thus, ith a minimum width of 18 inches. The able seepage downstream of the dike, and oject construction was completed in	
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JOHN C. THOMPSON, Lt Col, USAF Chief, Automated Mission Planning Section

Attachment Distribution List

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BEAVER DAM COMPLETION REPORT

APPENDIX - G

APPENDIX G

Explanation of Terms Used

<u>Term</u>	Meaning
Pile #	The Number Assigned to each pile, beginning at 0 on the northern terminus of job and ending with 738 at southern terminus of contract.
Drilling Date	The date or dates the pile was drilled.
Rig #	Either Rig 1 (Mounted on a Link Belt 318 crane) or Rig 2 (Mounted on a Manitowoc 4100 crane).
Excavation Method	Type of Hammer Used.
Drill Footage .	Amount of footage drilled in the time frame given.
Redrill Footage	Amount of redrilling necessary due to down staging or other reason given.
Drill Time	Amount of time it took to drill the pile to the depth given.
Redrill Time	Time interval required to excavate redrilled portion of the pile.
Penetration Rate	The rate (ft/hr) at which pile was drilled or redrilled.
Concrete Date	The date on which the corresponding spec. concrete or non-spec. concrete/grout was placed for stabilization purposes.
Spec Concrete	The specification concrete used to make the wall.
Non-Spec Concrete	Concrete used to stabilized the drill hole.
Grout	Grout used to stabilize the drill hole.
Theoretical Vol.	The volume of grout, non-spec concrete or spec concrete calculated to fill the drill hole.
Overbreak	A percentage difference between the calculated volume of grout or concrete to fill a drill hole and the amount actually required. 11 11 12 13 14 15 15 15 15 15 15 15

Meaning Term

Verticality The amount and direction of deviation from perfect verticality.

The amount of over lap of a pile in inches S-ARC between the adjacent two piles (one to the north and one to the south) calculated from

the verticality of the 3 adjoining piles.

Tells if the pile was cored to check concrete Quality Coring

quality.

APPENDIX G

Part 1 Contractual Piles

Part 2 Conforming Piles

Part 3 Production Rates (Various Materials)

Blue stand

CONTRACTUAL PILE DATA

Secondary Pile # 0 Area "A"

Total Drill Time =

Average Penetration Rate =

5.04 Hours 18.07 Feet / Hour

Total Redrill Time = Average Penetration Rate ≖

Verticality Information

1 South X 1 East At Full Depth =

S-ARC North = S-ARC South =

28.29

Quality Coring: None.

Comments:

Primary Pile # 1 Area "A"

		Overbreak		8.4%
			CO.YD.	19.1
	Spec.	Concrete	(CU.YD.)	20.75
CONSTRUCTION	Non-Spec.	Concrete	(CU.YD.)	
WALL CONS		Grout	(CU.YD.)	
CUT-OFF WALL (Concrete	Date	12/01/92
	tte	Redrill	(FT/HR)	
	Penetration Rate	Dr.	(FT/HB)	19.43
		Redrill	(HRS)	
	Pure Drill Time	Drill	(HRS)	4.22
		Redrill	(FT)	
ATION	Drill Footage	Drill	(FT)	82
-OFF WALL EXCAU	1	Excavation	Method	DHD130A
	Fouringen	Rid	*	-
		Drilling	Date	11/30/92

Total Drill Time = Average Penetration Rate =

4,22 Hours 19,43 Feet / Hour

Total Redrill Time = Average Penetration Rate ==

None

Verticality Information

O'N/S X O'E/W At Full Depth =

S-ARCNorth = S-ARCSouth =

Quality Coring: None.

Area "A"

Total Drill Time =

6.33 Hours 12.95 Feet / Hour

Average Penetration Rate =

Total Redrill Time = Average Penetration Rate =

Verticality Information

0"N/S X 4.5" East 28.29 28.16 At Full Depth =

S-ARCNorth =

S-ARCSouth =

Quality Coring: NQ 0' to 19'.

Comments:

Primary Pile # 3 Area "A"

19.0% Overbreak 18.9 Theoretical Volume -(CU.YD.) 25.5 Spec. Concrete (CU,YD.) Non-Spec. Concrete (CU.YD.) CUT-OFF WALL CONSTRUCTION Grout (CU.YD.) 03/11/93 Concrete Date (FT/HB) Redrill Penetration Rate Drill 14.57 (FT/HR) Redrill (HRS) Oure Drill Time Drill (HRS) 5.56 Redrill (FT) Drill Footage Drill (FT) 81 CUT-OFF WALL EXCAVATION Excavation DHD 130A Method quipment Ŗ 03/10/93 Drilling Date

Total Drill Time = Average Penetration Rate =

5.56 Hours 14.57 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

0" N/S X O E/W 26.18 At Full Depth ==

28.14 S-ARCNorth = S-ARCSouth =

Quality Coring: None.

Secondary Pile # 4 Area "A"

	Theoretical	Concrete Volume Overbreak (CU.YD.) (CU.YD.)	23 18.9 21.6%	
CUT-OFF WALL CONSTRUCTION	Z	Concrete (CU.YD.)		
F WALL CO		Grout (CU.YD.)		
CUT-OF		Concrete	01/21/93	
	ate	Redrill (FT/HR)		
	Penetration Rate	Drill (FT / HR)	9.30	
		Redrill		
	Pure Drill Time	Drill	8.71	
		Redrill		
NOIT	Drill Footage	E C	. 81	,
HE WALL EXCAVA	+	EX	Method DHD130A	
	Equipment of	2	*	
		Drilling	Date 01/19/93	

Total Drill Time = Average Penetration Rate =

8.71 Hours 9.30 Feet / Hour

None

Total Redrill Time = Average Penetration Rate ==

Verticality Information

1" North X .38" East At Full Depth =

26.16 30.01 S-ARCNorth =

Quality Coring: NQ 01 to 871

Comments:

Primary Pile # 5 Area "A"

		THOSE WALLEY CAVA	NOT						ICUT-OFF WALL CONSTRUCTION	WALL CONS	THUCTION			
		THE LACTOR											Thomsonion	
	Comminger	**	Drill Footage		Pure Drill Time		Penetration Rate	40			Non-spec.	obec.	Heorence	
Cilling	Rich	Excavation	Drill	Redrill	Drill	Redrill	110	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
2	*	Method	(FT)	(FT)	(HRS)	(HRS)	(FT/HR)	(FT/HR)	Date	(CU.YD.)	(CU.YD.)	(CU,YD.)	(CU.YD.)	
Calo		Some												
03/29/93	8	DHD130A	. 82		8.68		9.47		03/30/83			23	19.1	20.1%

Total Drill Time = Average Penetration Rate =

8.86 Hours 9.47 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

3.5 North X 2 West 28.14 18.78 At Full Depth =

S-ARCNorth = S-ARCSouth =

Quality Coring: None.

Secondary Pile # 6 Area "A"

		SEPTEMBER EVENTALLA	HICK						CUT-OFF WALL CONSTRUCTION	VAL CONS	TRUCTION			
		して	202								Nies Crer	Spec	Theoretical	
		4-	Drill Footborn		Pure Drill Time		Penetration Rate	te			2000			7
		10	2000					177-0	Constitution	1	Google	Concrete	AOIIII	CALCIERA
C C SILIC	ā	Fxcavation	= 0	Hedrill	Ē	Hedrill		Hedrill	Concrete	1000		(CX 11.0)	כא זיט	
2	, מ	7 - 10 - 10	(12)	(FT)	(HRS)	(HRS)	(FT/HR)	(FT/HH)	Date	CO. YO.)	(50.10.)	20:12:1		
Date	*	Method												
EB/EU/60	_	DHD130A	82		8.58		9.56		02/08/93			24	19.1	25.3%
00/00/20														

Total Drill Time =

8.58 Hours 9.56 Feet / Hour

Average Penetration Rate =

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

1.35* South X 3.75 West At Full Depth =

S-ARCNorth = S-ARCSouth =

33.80

Quality Coring: None.

Comments:

Primary Pile # 7 Area "A"

									COLLOPE WALL CONSTRUCTION			-		
		THE WALL DADAY	2012									0-00	Theoretical	
							Donotration Bate				Non-Spec.	Spac.	ineciant in	
	Commission	*	Drill Footage		Fure Drill Time		and the state of the	l			0	Concrete	Volume	Overbreak
	2000		-	27.7	-	Dedell	====	E PORT	Concrete	Grout	Concrete	כסוכים		
Cailling	ă	Excavation		Hedri						100	()	(0)	(CX 172)	
0	n :		į		1000	1007	(01/10)	ET/II	Cate	(00.10)	100.100	101.00		
o to C	*	Method	ET.	1	(PHS)	CUL	1							
200														
												7	•	0 794
					000		28 08		04/03/93			7	6	2.6
50/00/10	•	XI - 24	82		20.2		20.00							
04/05/90														

Total Drill Time = Average Penetration Rate =

2.83 Hours 28.98 Feet / Hour

Total Redrill Time == Average Penetration Rate ==

None

Verticality Information

4.25° North X 1.33° West 18.78 At Full Depth =

S-ARCNorth = S-ARCSouth =

Quality Coring: None.

Secondary Pile #8 Area "A"

	1	SPECIAL EVENT	ATION						I CUT - OFF WALL CONSTRUCTION	WALL CONS	THUCTION			
		A LUCION LLON	25									0000	Theoretical	
		÷.	Drill Footage		Pure Orill Time		Penetration Rate	ite			Non-spec.	abec.	100000000000000000000000000000000000000	1
	Edulpine	111			-	Dedelli	1100	ויייסמ	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
Caillia	ă	Fxcavation	Ē	Hedri		E Dec			2010100			(0)	(QX EQ)	
2	P :	7 - 17 - 10	(1-1)	(La)	(FERS)	(HBS)	(FT/HR)	(FT/HR)	Date	(CU.YD.)	(CO. 4D.)	100.100	20.10.	
Date	*	Method		11.11	100									
	_													90
		_			10 74		7.54		02/20/83			54	20.00	Z 6.02
02/18/93	2	DHD130A	50		1									

Total Drill Time =

10.74 Hours 7.54 Feet / Hour

Average Penetration Rate =

Total Redrill Time = Average Penetration Rate =

Verticality Information

.59" North X .59" West At Full Depth =

33.80 S-ARCNorth = S-ARCSouth =

Quality Coring: None.

Comments:

Primary Pile # 9 Area "A"

		THE WAY TO VINEY	XTION						TCUT - OFF WALL CONSTRUCTION	SNOO TWA	TRUCTION			
	3	A ないくじ コース A LLOI I	200										Thousand	
		*	Drill Footage		Pure Drill Time		Penetration Rate				Non-spec.	o bac.		A construction of
Drilling	Rig	Excavation	Drill	Redrill	Drill	Redrill	ll Orill	Redrill	Concrete	Grout (Cit YD.)	Concrete (CU.YD.)	COU.YD.)	(CU,YD.)	Overbreak
Date	*	Method	(FI)	(FT)	(HHS)	CHE	וווווווווווווווווווווווווווווווווווווו		Caro					
04/08/93	2	XL-24	18		3.90		20.77		04/07/93			24	18.9	26.9%

Total Drill Time = Average Penetration Rate =

3.90 Hours 20.77 Feet / Hour

Total Redrill Time = Average Penetration Rate ==

None

Verticality Information

2" South X 1" East At Full Depth = S - ARC North = S - ARC South =

21.05

Quality Coring: None.

Secondary Pile # 10 Area "A"

	TITO	YEE MAIL EYCAVA	TION						CUT-OFF V	WALL CONSTRUCTION	TRUCTION			
	3	TAVORT TYPE	101								ALTO CHES	Conco	Theoretical	
	Followard	1	Drill Footage		Pure Drill Time		Penetration Hate	9			NOT - Spec.	900	i i construe	
	2	-		١			:		-	1	Character	Concrete	- Contino	
Drilling	Rig	Excavation		Redrill	5	Redrill	5	Hedri	Concrete	inois.				
	7 7	Mothod	£	٤	HRS	FRS	FI/HB	(FT / HR)	Date	(CC:VD:)	(CU.VD.)	(CO.TO.)	(70.10.)	
Cale	*	Menion			+									
02/23/93	2	CLUSTER	18		8.66		9.35		02/24/93			83	18.9	21.6%

Average Penetration Rate = Total Drill Time =

8.66 Hours 9.35 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

3.47" North X 1.87" ast At Full Depth =

24.23 S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 11 Area "A"

17.5% Overbreak 19.1 Theoretical Volume (CU.YD.) 225 Spec. Concrete (CU.YD.) Non-Spec. Concrete (CU.YD.) CUT-OFF WALL CONSTRUCTION Grout (CU.YD.) 04/03/93 Concrete Date 22.40 (FT/HR) 3.66 Redrill (FT) Drill Footage Drill (FT) 웞 CUT-OFF WALL EXCAVATION Excavation Method XL-24 quipment Rig 04/02/93 Drilling Date

Total Drill Time = Average Penetration Rate =

3.66 Hours 22.40 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

At Full Depth = Verticality Information

1.75" North X 1.5" East 33.79 23.64

S-ARC North = S-ARC South =

Quality Coring: None.

Area "A"

	CUT-O	DFF WALL EXCAVA	TION Drill Footage	Bedrill	Pure Drill Time	Redrill	Penetration Rate	Redrill	CUT-OFF WALL CONSTRUCTION Non-Spe Concrete Grout Concrete	WALL CONS	Non-Spec. Concrete	Spec. Concrete	Theoretical Volume	Overbreak
Date	£*	Method	E	E	(HRS)	HRS)	(FT/HR)	(FT/HR)	Date	(CU.VD.)	(CU.YD.)	(CU.YD.)	(cu.vo.)	
02/18/93	2	DHD130A	88		8.99		9.12		02/20/93			24	19.1	25.3%

8.99 Hours 9.12 Feet / Hour

Total Drill Time = Average Penetration Rate =

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

0" N/S X 2.82" West 24.23 33.06

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 13 Area "A"

		Overhinak	um initial		25.3%	
	Theoretical	Volume	(CU.YD.)		19.1	
	Spec.	Constitute	(CU VD)		24	
CONSTRUCTION	Non-Spec.	Comondo		124		
WALL CONS		4		77.7		
CUT-OFF			Concrete	Calco	03/13/93	
	ite		Hedrill (1)	ונו / שמי		
	Penetration Re			FI/DIN	10.37	
		1	Redrill	(SHE)		
	Prine Orill Time		Dull.	HKS	7.91	
			Redrill	(F)		
MIDN	Pull Footnote	DIE L'ORAGE	Drill	(FI)	88	
FF WALL FXCAVA			Excavation	Method	DHD130A	
	5	Edutomen	Rig	*	2	
			Drilling	Date	03/12/93	

Total Drill Time ≂ Average Penetration Rate =

7.91 Hours 10.37 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

4.87" North X 1.79" West At Full Depth = S-ARC North = S-ARC South =

23.64

Quality Coring: None.

Secondary Pile # 14 Area "A"

		PEF WALL EXCAVA	NOIL						CUT-OFF V	VALL	CONSTRUCTION			
		34	Drill Footage		Pure Drill Time		Penetration Rate	te e			Non-Spec.	Spec.	Theoretical	
Drilling	Rig	Q,	<u>F</u>	Redrill	Drill O S	Redrill		Redrill (FT / HB)	Concrete	Grout	Concrete	Concrete (CU.YD.)	Volume (CU:YD.)	Overbreak
Date	#	Method		1	2	2			2					
12/07/92	+	DHD130A	8		19.85		4.08		12/09/92		,	21.5	18.9	13.7%

Total Drill Time = Average Penetration Rate =

19.85 Hours 4.08 Feet / Hour

Total Redrill Time = Average Penetration Rate =

Verticality Information

1.63" North X 1.13" West

33.06 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 15

Area "A"

FRUCTION	Non-Spec.	Concrete	(CU.VD.)		
CUT-OFF WALL CONSTRUCTION		Grout	(CU.VD.)		
CUT-OFF		Concrete	Date	03/30/93	
		Redrill	(FT/HR)		
	Penetration Rate		(FT/HR)	15.86	
		Redrill	(HRS)		
	Pure Drill Time	Drill	(HRS)	5.17	
		Redrill	(FT)		
TION	Drill Footage	Dill	Œ	88	
FF WALL EXCAVA		Excavation	Method	CLUSTER	
CUT-0	Tauromen	Rio	*	2	-
		Drilling	Date	03/29/93	
					•

25.3%

19.1

*

Overbreak

Theoretical Volume (CU,YD.)

Spec. Concrete (CU,YD.)

Total Drill Time = Average Penetration Rate =

5.17 Hours 15.86 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

1.23" North X 1.98" West

21.80 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments: Small Void in Pile.

Secondary Pile # 16 Area "A"

		AVACVA I AVA	TION						ICUT-OFF WALL CONSTRUCTION	WALL CONS	TRUCTION			
	200	UPT WALL EXCAVA	NOIS								Maria Onco	Chac	Theoretical	
	Collinmon	ţ	I Drill Footage		Pure Drill Time		Penetration Rate	9			Non-spec.	3000	W-t-	A section of
Drilling	Rig	ā	Drill	Redrill	Orill	Redrill		Redrill (FT / HB)	Concrete	Grout	Concrete (CU.YD.)	(CU.YD.)	(CU.YD.)	OVERDICERA
ate	*	Method	(F)	(1)	QUE.	SUL.								
0/16/92	_	DHD130A	98		9.50		8.42		10/21/92			83	18.7	17.8%

9.50 Hours 8.42 Feet / Hour

Total Drill Time = Average Penetration Rate =

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

1.85" South X 0.62 " East 26.17 At Full Depth =

27.81 S-ARC North = S-ARC South =

Quality Coring: 6" 0' to 30' w/pile #17

Comments:

Primary Pile # 17 Area "A"

8.3% Overbreak 19.4 Theoretical Volume (CU.YD.) 2 Spec. Concrete (CU.YD.) Non-Spec. Concrete (CU.YD.) **CUT-OFF WALL CONSTRUCTION** Grout (CU.YD.) 11/05/92 Concrete Date Redrill (FT / HR) Penetration Ra Drill (FT / HR) 17.04 (HRS) Pure Drill Time Drill 4.87 Redrill Orill Footage Drill (FT) 8 CUT-OFF WALL EXCAVATION Excavation DHD130A 11/04/92 Drilling Date

Total Drill Time = Average Penetration Rate =

4.87 Hours 17.04 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

t" South X 1.5" West 21.87 25.66

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: 6" 0' to 30' w/pile #16

Secondary Pile # 18 Area "A"

	CITTO	PEF WALL EXCAVA	MOLL						CUT-OFF\	UT-OFF WALL CONSTF	TRUCTION			
	Follipmen	1	Drill Footage		Pure Drill Time		Penetration Rat	9			Non-Spec.	Spec.	Theoretical	
Drilling	Rig	Excavation		Redrill	Drill	Redrill	Drill (FT / HR)	Redrill (FT / HR)	Concrete	Grout (CU,YD.)	Concrete (CU.YD.)	Concrete (CU.YD.)	Volume (CU.YD.)	Overbreak
Date	*	Menion												
10/24/92	-	DHD130A	88		7.92		10.35		10/24/92			&	19.1	4.4%
				-										

Total Drill Time = Average Penetration Rate =

7.92 Hours 10.35 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

1.75" South X 2.5" West

27.81 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 19 Area "A"

9.7% 1% Overbreak 19.1 Pheoretical Volume (CU.YD.) 2 Spec. Concrete (CU.YD.) Non-Spec. Concrete (CU.YD.) SUT-OFF WALL CONSTRUCTION Grout (CU.YD.) 11/12/92 Concrete Date Redrill (FT/HB) enetration Rate Drill (FT / HR) 16.24 Redrill (HRS) Pure Drill Time Drill (HRS) 5.05 Redrill (FT) Drill Footage Drill (FT) ଷ୍ଟ CUT-OFF WALL EXCAVATION Excavation DHD130A Equipment Rig 11/12/92 Drilling Date

Total Drill Time = Average Penetration Rate =

5.05 Hours 16.24 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

At Full Depth = Verticality Information

4.5" North X 0" E/W 25.66 17.59

S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 20 Area "A"

		American	Overbream		11.0%	
	Theoretical	,	(CU.YD.)		18.9	
	Snor		(CU.YD.)		21	
TRUCTION	Non-Snor	NOT SPOR	Concrete			
CUT-OFF WALL CONSTRU			Grout	100		
CUT-OFF V			Concrete	Date	10/30/92	
		- 1	Redrill	ונון / ונון		
		Penetration Hate		ורו / חח)	10.57	
			Redrill	(SHE)		
		Pure Drill Time	FO.	(HHS)	7.66	
			Redrill	(FT)		
NOIT	101	Drill Footage	lino.	(FI)	81	
CEMAN EVOAVA	PE WALL EACAY	+	Excavation	Method	DHD130A	
110	0100	Fallinmen	Rig	#	-	
			Drilling	Date	10/29/92	

7.66 Hours 10.57 Feet / Hour

Total Drill Time = Average Penetration Rate =

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

1" South X 1.75" West 34.53 28.06

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 21 Area "A"

		Charbraak			8.4%	
	Theoretical	Volumo	(CU.YD.)		19.1	
	Spec.	Company	COLINA		20.75	
TRUCTION	Non-Spec.	-				
CUT-OFF WALL CONSTRUCTION				77.77		
CUT-OFF		,	Concrete	Laio	12/01/92	
	ote	П	E Sed	(11 / 110)		
	Donotration Rate	o longing l		CLI LING	9.34	
			Redrill	(AHZ)		
	D D.:II Time		Ori	(SEE)	8.78	
			Redrill	Œ		
NOLL		Unil rootage	Drill	E	88	
EE MAIL EYCAVI	THE WALL LAUNT	-	Excavation	Method	DHD130A	
1		Faurinment	Ŗ	*	1	
			Drilling	Date	12/01/92	

Total Drill Time = Average Penetration Rate =

8.78 Hours 9.34 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

0 N/S X 0 E/W 17.59 22.62 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 22 Area "A"

Total Drill Time = Average Penetration Rate =

9.12 Hours 8.88 Feet / Hour

Total Redrill Time = Average Penetration Rate =

Verticality Information

2.75" South X .25" East At Full Depth =

28.06 30.45

S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 23 Area "A"

21.6% Overbreak 18.9 heoretical Volume (CU.YD.) ន Spec. Concrete (CU.YD.) CUT-OFF WALL CONSTRUCTION

Concrete Grout Concrete

Date (CU.YD.) 03/11/93 Concrete Date Redrill (FT / HR) Penetration Rate Drill (FT / HR) 14.94 Redrill (HRS) Pure Drill Time Drill (HRS) 5.42 Redrill (FT) Drill Footage Drill (FT) 8 **CUT-OFF WALL EXCAVATION** Excavation CLUSTER quipment Rig 03/10/93 Drilling Date

Total Drill Time = Average Penetration Rate =

5.42 Hours 14.94 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

0" N/S X 0" E/W 22.62 30.45 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 24 Area "A"

Total Drill Time =

16.23 Hours 4.99 Feet / Hour

Average Penetration Rate =

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

0" N/S X 0" E/W 30.45 31.9

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 25 Area "A"

		Overbreak		15.1%	
	Theoretical	(CU.YD.)		21.7	
	Spec.	Concrete (CU.YD.)		32	
TRUCTION	Non-Spec.	Concrete (CU.YD.)			
CUT-OFF WALL CONSTRUCTION		GUYD.)			
CUT-OFF		Concrete		04/04/93	
	ate	Redrill (FT / HR)			
	Penetration Rate			20.67	
		Redrill	2		
	Pure Drill Time	Drill	2	4.50	
		Redrill			
NOIT	Drill Footage	<u></u>		88	
FF WALL EXCAVA	4	Excavation	Memod	XL-24	
	Fallipmen	Rig	*	3 2	
		Drilling	Date	04/03/93	

Total Drill Time = Average Penetration Rate =

4.50 Hours 20.67 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

4" North X 2" West 26.76 22.54 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments: Overdrilled pile accidentally - Contractor though he was in 90' section

Area "A"

	2	V/V CALL	TION						CUT-OFF V	T-OFF WALL CONSTRUCTION	TRUCTION			
		THE WALL EXCAVA	25								ALTER CHANGE	Char	Theoretical	
			Drill Footbade		Pure Drill Time		Penetration Rat	9			NOT - Spec.	doc.	Metine	Jonephan
	Edulphine		2000	Ţ			-	Dodrill	Contractor	1	Concrete	Concrete	Volume	CARCIDAN
Drilling	Rig	Excavation		Redrill	Ē	Hedrill			Date		CLYD	(CU.YD.)	(CU.YD.)	
Pate	#	Method	E	Œ	(HHS)	(HPS)	(FI / FIR)	ULL LL	Dailo	20.00				
O O	·	CITATIO	8		25.00		18.40		02/19/93			R	21.5	16.4%
02/14/93	.7	CLOSIEN	36		3									

5.00 Hours 18.40 Feet / Hour

Total Drill Time,= Average Penetration Rate =

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

1.5" North X 2" East

At Full Depth = S-ARC North = S-ARC South =

No Overlap at Full Depth Corrected With Conforming Pile. 31.9

Quality Coring: None.

Comments: Overdrilled hole accidently - Contractor thought he was in 90' section

Primary Pile # 27

Area "A"

					ı
	Contract	Overbioner		12.3%	
Theoretical	Volume	(CU.YD.)		19.1	
Choc	3	(CU.YD.)		21.5	
Mon Caco	MOI Spec.	Concrete			
		Grout	100		
		Concrete	Cald	04/08/93	
	fe	Redrill	ILI / UU		
	Penetration Ra	Orill	(F1 / HR)	17.56	
		Redrill	(HHZ)		
-	1	Oull	(HRS)	4.67	
		Redrill	(FI)		
20	1 Drill Footage	Drill	E)		
TH WALL EXCAVE	+	Excavation	Method	XL-24	
ב בי	in mon	Rig	*	2	
		Drilling	Date	04/07/93	
	T	Theoretical Non-Spec. Spec. Theoretical Non-Spec. Spec. Theoretical Non-Spec. Spec. Theoretical Non-Spec.	Equipment Drill Footage Pure Drill Time Penetration Rate Grout Concrete Grout Concrete Rig Excavation Drill Redrill Drill Redrill Concrete Grout Concrete Grout Concrete	CUI - OF F WALL EXCAVATION CUI - OF F WALL EXCAVATION Equipment	CUI - UFF WALL EXCAVATION Pure Drill Time Penetration Rate Rate of Equipment Non-Spec. Spec. Theoretical Notice of Currents Spec. Theoretical Notice of Currents Concrete Concrete Concrete Concrete Concrete Concrete Volume Overtex (CU.YD.) COLYD.) COLYD.)

Total Drill Time = Average Penetration Rate =

4.67 Hours 17.56 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

At Full Depth ==

9.81" South X 7.55" West No Overlap at Full Depth Corrected With Conforming Pile. 35.92

S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 28 Area "A"

20.1% Overbreak 19.1 heoretical Volume (CU.YD.) g Spec. Concrete (CU.YD.) Non-Spec. Concrete (CU.YD.) CUT-OFF WALL CONSTRUCTION Grout (CU.YD.) 02/26/93 Concrete Date (FT/HR) Redrill Penetration Rate Drill (FT / HR) 13.49 Redrill (HRS) Pure Drill Time Drill (HRS) 6.08 Redrill (FT) B Drill Footage E CUT-OFF WALL EXCAVATION CLUSTER Excavation Method Equipment Rig N 02/25/93 Drilling Date

Total Drill Time = Average Penetration Rate =

6.08 Hours 13.49 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

1.90" North X 3.80" West At Full Depth =

35.92 21.93 S-ARC North =

S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 29

Area "A"

Non – Spec. Concrete (CU.YD.) CUT-OFF WALL CONSTRUCTION Grout (CU.YD.) 04/14/93 Concrete Date Redrill (FT / HR) Penetration Rate Drill (FT / HR) 12.62 Redrill (HRS) Oure Drill Time Drill (HRS) 6.50 Redrill (FT) 8 II Footage Drill (FT) CUT-OFF WALL EXCAVATION Excavation XL-24 Equipment Rig 2 04/12/93 Drilling Date

20.1%

19.1

ន

Overbreak

Theoretical Volume (CU.YD.)

Spec. Concrete (CU.YD.)

Total Drill Time = Average Penetration Rate =

6.50 Hours 12.62 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

1"South X 0"E/W 21.93 31.09 At Full Depth =

S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 30 Area "A"

									CHILDEEN	IT-OFF WALL CONSTRUCTION	TRUCTION			
	CUT-C	OFF WALL EXCAVA	SON									ŀ	1-1-1-1-1	
	Foreigner	-	Drill Footage		Pure Drill Time		Penetration Rate	.			Non-Spec.	Spec.	neovencal	A second
Drilling	Rig	Excavation	Drill	Redrill	Drill	Redrill	Drill	Redrill	Concrete	Grout	Concrete	Concrete (CU,YD.)	(CU.YD.)	Overbreak
Date	#	Method	(FI)	(FI)	(HHS)	Q	(LI / 110)	(נון / ווט)	Card	100.00	12:00			
03/30/93	2	DHD130A	81		10.48		7.73		03/30/33			24	18.9	26.9%

10.48 Hours 7.73 Feet / Hour

Total Drill Time = Average Penetration Rate =

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

2.25" North X 0" E/W 31.09 16.72

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 31 Area "A"

		SEE WALL EVENIA	NO.						ICUT-OFF WALL CONSTRUCTION	VALL CONS	TRUCTION			
		OFF WALL EACAY	NO.								Non-Sper	Spec	Theoretical	
	Editionen	-	Drill Footage		Pure Drill I me		Penetration Hate				Mai char.	- decir		A. T. T. T.
	-100	Cummin	11.0	Redrill	liu C	Redrill	E-G	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Cverpreak
Bulling	ב ב	EXCAVALINI	5 (Ę	10017	AUDO		AT / HB	Date	(CL/D)	(CC: AD:)	(CU:YD:)	(CU.YD.)	
Date	*	Method	=	1	2	200		1177111						
04/07/93	2	XL-24	88		4.17		19.66		04/08/93			22.5	19.1	17.5%

Total Drill Time = Average Penetration Rate =

4.17 Hours 19.66 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

At Full Depth = S-ARC North = S-ARC South = Verticality Information

2.86" South X 7.14" West 16.72 16.23

Quality Coring: None.

Secondary Pile # 32 Area "A"

	11.00	ANA OVER 1 PACE AT THE	TION						CUT-OFF V	UT-OFF WALL CONSTRI	TRUCTION			
	2 - 2	THE WALL EXCAV	201								A	Case	Theoretical	
	Common		Drill Footage		Pure Drill Time		Penetration Rate	_			NOTI - Space	oner.	in ordered	
Drilling	Rig	Ğ	Drill	Redrill	≣ §	Redrill		Redrill	Concrete	Grout	Concrete	COUCTE (CULYD.)	(CU.YD.)	Overbreak
9	*	Method	(F)	(FI)	QUE.	(SHE)	(ענו / נונו	(1111)	Calc	100				
4/02/93	8	XL-24	88		4.45		18.55		04/03/93			24	19.1	25.3%

Total Drill Time'=

4.42 Hours 18.55 Feet / Hour

Average Penetration Rate =

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

7.78" South X 1.56" East 16.23 34.59

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 33 Area "A"

20.1% Overbreak 19.1 Theoretical Volume (CU.YD.) R Spec. Concrete (CU.YD.) CUT-OFF WALL CONSTRUCTION

Concrete Grout Concrete

Date (CU.YD.) (CU.YD.) 07/14/93 Redrill (FT / HR) 16.40 (FT/HR) Redrill (HRS) Pure Drill Time Drill (HRS) 2.00 Redrill (F) Drill Footage Drill (FT) 8 CUT-OFF WALL EXCAVATION Excavation Method XL-24 E SE 04/12/93 Drilling Date

Total Drill Time = Average Penetration Rate =

5.00 Hours 16.40 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

1.5" South X .75" West 34.59 At Full Depth =

30.04 S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 34 Area "A"

Total Drill Time = Average Penetration Rate =

9.75 Hours 8.21 Feet / Hour

Total Redrill Time = Average Penetration Rate ==

Verticality Information

1.5" North X 4.17" East 30.04 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 35 Area "A"

		Overbreak		21.6%	
	_	(CU.YD.)		18.9	
	Spec.	Concrete (CU.YD.)		8	
STRUCTION	Non-Spec.	Concrete (CU.YD.)			
CUT-OFF WALL CONSTRUCTION		Grout			
CUT-OFF!		Concrete		03/13/93	
	te	Redrill FT / HB			
	Penetration Rate			6.94	
		Redrill	200		
	Pure Drill Time		2	11.67	
		Redrill			
VLION	Drill Footage	<u>F</u>	(11)	84	
FF WALL EXCAVA	-	Ď.	Method	DHD130A	
0-1110	Equipment 1	Hig	*	2	
		Drilling	Date	03/13/93	

Total Drill Time = Average Penetration Rate =

11.67 Hours 6.94 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

2.25' North X 0' E/W 27.29 17.32 At Full Depth = S-ARC North = S-ARC South = Verticality Information

Quality Coring: None.

Secondary Pile # 36 Area "A"

		114000	THOUSE.						ICUT-OFF	WALL CONS	TRUCTION			
	200	JEE WALL EXCAV	NO.									Space	Theoretical	
		i	Orill Footsde		Pure Orill Time		Penetration Rate	nte			Non-spec.	2000	i i adalica	
				١		l			_	+	Concrato	Concrete	emile>	
	i.	Excavation	Ē	Redrill		Rednill	5	Hedri	3	TO ST				
2	D .	1000	Ę	Ę	HPS	FRS	(FT / HB)	EH/FE	Date	(CU.VD.)	(CU.YD.)	(.0.10.)	(.0.10.)	
Date	*	Memod			2	2								
10/21/92	-	DHD130A	83		14.41		5.76		10/22/92			21.5	19.4	10.9%

Total Drill Time = Average Penetration Rate =

14.41 Hours 5.76 Feet / Hour

Total Redrill Time = Average Penetration Rate =

Verticality Information

3.16" South X 3.88" West 17.32 31.89

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 37 Area "A"

		Overhrenk	1		11.0%	
	Theoretical-		(CU,YD.)		18.9	
	Soec.	Constant	(CU.YD.)			
STRUCTION	Non-Spec		(CILVID)			
WALL CONSTRUCTION				NA. 1811		
CUT-OFF V			Concrete	Calo	11/13/92	
		_ [Hedrill (1)	THE THINK		
	0	renelialion nate		(LI / UII)	17.05	
			Redrill	Q L		
		Pure Unil Ime		(HHS)	4.75	
			Redrill	Œ		
I TOWN		Drill Footage	Drill	Œ	81	
	JEF WALL EACAV	1	Excavation	Method	DHD130A	
1	201	Fauinmen	Rig	*	-	
			Drilling	Date	11/13/92	

Total Drill Time = Average Penetration Rate =

4.75 Hours 17.05 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

1" North X .5" West 31.89 24.09 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 38 Area "A"

		Overbreak		7.8%
	Theoretical	Volume	(CU.YD.)	35.3
	Spec.	Concrete	(CU.YD.)	38
TRUCTION	Non-Spec.	Concrete	(CU.YD.)	
UT-OFF WALL CONSTF		Grout	(CU.YD.)	
CUT-OFF		Concrete	Date	11/07/92
	te	Redrill	(FT/HR)	
	Penetration Rate	Diric	(FT / HR)	9.00
		Redrill	(HRS)	
	Pure Drill Time	Drill	(HRS)	16.78
		Redrill	E	
ATION	Drill Footage	Diill	Ē	151
FF WALL EXCAVA	1	Excavation	Method	DHD130A
CUT-0	Equipment	Ric	*	-
		Drilling	Date	11/06/92

16.78 Hours 9.00 Feet / Hour

Total Drill Time = Average Penetration Rate =

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

1.53" South X 0" E/W na due to change in depth 26.03 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 39 Area "A"

	_	Volume Overbreak	(CU.YD.)	35.5 8.5%
	Spec.	Concrete	(CU.YD.)	38.5
TRUCTION	Non-Spec.	Concrete	(CU.YD.)	
WALL CONST		Grout	(CU.YD.)	
CUT-OFF		Concrete	Date	12/19/92
	ate	Redrill	(FI/HR)	
	Penetration R	IEO.	(FT/HR)	7.14
		Redrill	(HRS)	٠
	Pure Drill Time	Drill	(HRS)	21.30
		Redrill	(FD	
TION	Drill Footage	Diil	Œ	152
SFF WALL EXCAVA	ıt	Excavation	Method	DHD130A
CUT-C	Equipment	Rid	*	-
		Drilling	Date	12/15/92

Total Drill Time = Average Penetration Rate =

21.30 Hours 7.14 Feet / Hour

None

Total Redrill Time = Average Penetration Rate ==

2.03" South X .87" West 26.03 27.66 At Full Depth = Verticality Information

S-ARC North = S-ARC South =

Quality Coring: NQ 0' to 19.8" (for contractors use)

Comments: PUMP TRUCK USED FOR CONCRETE PLACEMENT.

Area "A"

		Очетргеви	4.9%	
	Theoretical	(CU.YD.)	35.3	
	Spec.	Concrete (CU.YD.)	37	
TRUCTION	Non-Spec.	Concrete (CU.YD.)		
CUT-OFF WALL CONSTRUCTION		Grout (CU.YD.)		
CUT-OFF		Concrete	11/03/92	
	on Rate	Redrill FT / HR		
	Penetration F	Drill (FT / HP)	6.84	
		Redrill		
	Pure Drill Time	Drill	22.09	
		Redrill		
ATION	Drill Footage	Ē	(F1)	
DEF WALL EXCAVA	+	ıΩ,	Method DHD130A	
	Fortiment	Rig	# 2	
		Drilling	Date 11/02/92	

Total Drill Time = Average Penetration Rate =

22.09 Hours 6.84 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

1.32" South X 2.64" West 27.66

At Full Depth = S-ARC North = S-ARC South =

No Overlap at Full Depth, Corrected with Conforming Pile.

Quality Coring: NQ FROM 0' TO 156.5'.

Comments:

Primary Pile # 41 Area "A"

	VITE OFF V	EE WALLEYCAVA	NOLL						CUT-OFF WALL CONSTRUCTION	VALL CONS	HOC ICA				
	2	I WALL LANDER	1011								Non-Coor	Cnor	Theoretical		
	Following		Drill Footage		Pure Drill Ime		Penetration Ha	9			3000	300	1100000		
Drilling	Rig	Excavation	害	Redrill	Dill	Redrill	Orill CET / HD)	Redrill FT / HB	Concrete	Grout (CLL YD.)	Concrete (CU:YD.)	Concrete (CU:YD.)	(CU.YD.)	Overbreak	
Date	#	Method		2	CUL	COLL	7117								
04/07/93	2	XL-24	152		8.58		17.72		04/08/93			40	35.5	12.7%	
	_						The second secon								

Total Drill Time = Average Penetration Rate =

8.58 Hours 17.72 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

At Full Depth = S-ARC North = S-ARC South =

20.40" South X 5.83" East No Overlap at Full Depth, Corrected with Conforming Pile. 46.31

Quality Coring: None.

Area "A"

	OIT-OFF	SEE WALL EXCAVA	NOIL						CUT-OFF V	WALL CONSTRUCTION	TRUCTION			
		*	Drill Footage		Pure Drill Time		Penetration Rate	9			Non-Spec.	Spec.	neoretical	
Drilling	Rig	Excavation	E I	Redrill	Dill	Redrill	Orill Orill	Redrill (FT / HB)	Concrete	Grout (CLI YD.)	Concrete (CU.YD.)	Concrete (CU.YD.)	(CU.YD.)	Overbreak
Date	*	Method	(FI)	(F1)	(CHF)	CHU	(117)	111111111111111111111111111111111111111						
11/28/92	-	DHD130A	151		28.83		5.24		11/30/92			38.5	35.3	9.2%

28.83 Hours 5.24 Feet / Hour

Total Drill Time = Average Penetration Rate ==

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

1.75" S X 1.25" E

46.31 27.10 At Full Depth = S-ARC North = S-ARC South = Quality Coring: NX/NQ cored to 101' on 4/21 -22/93.

Comments: This pile was drilled to 35' by accident on 3/30/93. It took 13 cu.yd. of spec. concrete.

Primary Pile # 43

Area "A"

		Overbreak		15.5%	
	Theoretical	(CU,YD.)		35.5	
	Spec.	Concrete (CU.YD.)		41	
STRUCTION	Non-Spec.	Concrete			
F WALL CONST		Grout			
CUT-OFF		Concrete	Amo	04/15/93	
	ite	Redrill	1110		
	Penetration Rate		מנו / נונו	12.00	
		Redrill	Ž		
	Pure Drill Time		QHE.	12.67	
		Redrill	(F)		
MULL	Drill Footscle	Drill	(ED	152	
SEE WALLEYCAVA	1.	Excavation	Method	DHD130A	
1		Rig	#	2	
		Drilling	Date	04/13/93	

Total Drill Time = Average Penetration Rate =

12.67 Hours 12.00 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

1.5°S X 1.88°E 27.10 30.66 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Area "A"

	Spec	The state of the s	Concrete Concrete Concrete Concrete Volume	Drill Redrill Drill Heart Training	(FT) (HRS) (FL/HR) (FL/HR) (SCI.CL)		151 25.97 5.81 02/05/93	
I CIF	20	Drill Footsca	Samo I III	Drill Redi			151	
and one	T-OFF WALL EXCAVA		dupment	io Excavation	Wethod		1 DHD130A	
	2			Drilling	S	Dale	02/01/93	

25.97 Hours 5.81 Feet / Hour

Total Drill Time = Average Penetration Rate ==

None

Total Redrill Time = Average Penetration Rate ==

1.5" N X 0" E/W 30.66 23.15 Verticality Information

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 45

Area "A"

		Chachrook					12.1%	
	heoretical	Votimo	A CALLIE	(CU.YD.)		1 10	33.3	
				(CU.YD.)	-		4	
TRUCTION	Non-Sher	100	Concrete	(CI) AD)				
CUT-OFF WALL CONSTRUCTION		,	Grout					
CUT-OFF		_	Concrete	940	Calo		03/15/93	
		ate			EL/III		10	
		Penetration H	-		(FI/HH)		10.25	
			17.0	Hear	(HHS)			
		Pure Drill Time			(SUH)		14.83	
	-		-	Redrill	Œ			
ATION	200	I Drill Footback			Ē		152	
A CONTRACTOR AND AND AND	THE WALL EACAN	+		Excavation	Method		DHD130A	
				Ë	*		2	
				Drilling	2	יסוני	03/14/93	

Total Drill Time = Average Penetration Rate =

14.83 Hours 10.25 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

.88" S X 1.46" W 23.15 22.52 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 46 Area "A"

CUT-OFF WALL CONSTRUCTION	Spec	Mail Space	Grout Concrete Concrete Volume Overbream		92 40 35.3 13.4%	
CUT-OI		٦	Drill Redrill Concrete	(LI / LIW)	5.24 11/21/92	
		ure Drill Time	Redrill	╁	28.83	
NO		Orill Footage	Drill Redrill	(FT) (FT)	151	
T OCE MAIN EXCAVAT	こうしい マイド にんしん	- toomer	lig Excavation	# Method	1 DHD130A	
	3		Drilling	Date	11/18/92	

28.83 Hours 5.24 Feet / Hour

Total Drill Time = Average Penetration Rate =

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

2.93°S X 4.89°E 22.52 24.33

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: NQ 0' TO 19.0' (For Contractors Use); 6' Joint core 46/47 to 29.7'

Comments:

Primary Pile # 47

Area "A"

		AU A CUM I ALAMA							CUT-OFF	WALL CONSTRUCTION	TRUCTION			
		JEE WALL EXCAVE	100								Marie Conde	0000	Theoretical	
	Forting	14	Drill Footage		Pure Drill Time		Penetration Rate	ı			Non-spec.	char.	Vehino.	Compiner
	T CONT		1100	Dodail	100	Radrill	E	Redrill	Concrete	Grout	Concrete	Concrete	AUTON	CVERDICERA
Drilling	탈	Excavation	3		5				1		(CX IZ)			
Pate	*	Method	٦	Œ	HRS	HRS	F / HR	EI/HH) Alle	177.7X	20.00	12.		
Date														
12/09/92	-	DHD130A	152		19.57		77.7		12/10/92			38.5	35.5	8.5%

19.57 Hours 7.77 Feet / Hour

Total Drill Time = Average Penetration Rate =

None

Total Redrill Time = Average Penetration Rate =

At Full Depth = S-ARC North = S-ARC South = Verticality Information

3.5" S X 2.5" W 24.33 29.32

Quality Coring: None.

Secondary Pile # 48 Area "A"

	1	VEC WALL EYCAVA	NOITY						CUT-OFF WALL CONSTRUCTION	WALL CONS	TRUCTION			
		THE WALL DAVA									Man Coon	Snor	Theoretical	
	Equipment.	14	I Drill Footage		Pure Drill Time		Penetration Hal	e			NOI-Spec.			
		11					** **	10 T - C	-	4	Control	90000		X E COS
Driffing	Rig	Excavation	ii o	Redrill	Dial.	Redrill	1 to	Hedri	Concrete				(CU.YD.)	
2	*	Method		Œ	(HRS)	(HES)	FI/HB	(LI / NH)	Date	20.10.	20.00			
Dale		Politoria												
10/28/92	-	DHD130A	152		25.00		6.08		10/29/92			37	35.5	4.2%

Total Drill Time = Average Penetration Rate =

25.00 Hours 6.08 Feet / Hour

Total Redrill Time = Average Penetration Rate =

Verticality Information

1.55" S X .75" W 29.32 37.60 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 49

Area "A"

Fotal Drill Time = Average Penetration Rate =

12.17 Hours 12.49 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

7.5" N X 2.25" E 37.60 10.45 At Full Depth = Verticality Information

S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 50 Area "A"

	#10	AVAIL EVAIL	TION						CUT-OFF V	VALL CONS	TRUCTION			
	2	これない コースト しょう	201									L	Theoremies	
	Fortiment	int.	Drill Footage		Pure Drill Time		Penetration Rate	- 1			Non-spec.	apac.	i i edience	
		110			: 1		-	Dodeill	Connection	1	Concrete	_	OFFICE	X890
Drilling	Sign	Fycavation		Red		Hedri	5	Hear	COLICIER	3	9010100		10000	
2	2		Ę	Ę	(npc)	(June)	EH/HB	(FT / HR)	Date	(CC:X2)	(CC.XD.)		(CU.YD.)	
Date	*	Method			2	2	,,,,,							
02/08/93	2	DHD130A	150		25.66		5.85		02/09/93			42	35.0	19.9%

25.66 Hours 5.85 Feet / Hour

Total Drill Time = Average Penetration Rate =

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

.6" S X 2.2" W 10.45 At Full Depth =

S-ARC North = S-ARC South =

No Overlap at Full Depth, Corrected with Conforming Pile.

Quality Coring: None.

Comments:

Primary Pile # 51

Area "A"

		Overbreak	15.5%	
	Theoretical	(CU,YD.)	35.5	
	Spec.	Concrete (CU.YD.)	41	
TRUCTION	Non-Spec.	Concrete (CU, YD.)		
F-OFF WALL CONSTRUCTION		Grout Cli YD		
ICUT-OFF		Concrete	04/01/93	
	ate	Redrill (FT / HB)	1	
	Penetration R	Drill	26.43	
	0	Redrill		
	Pure Drill Time	Drill	(FIRS) 5.75	
		Redrill		
ATION	Drill Footage	Die ((F1) 152	
T_OFF WALL EXCAVATION	1	<u>,</u>	Method XL-24	
	Forman	Rig	# 0	
		Drilling	Date 03/30/93	

Total Drill Time = Average Penetration Rate =

5.75 Hours 26.43 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

At Full Depth =

14.6" S.X.3.18" E No Overlap at Full Depth, Corrected with Conforming Pile. 41.75 S-ARC North = S-ARC South =

Quality Coring: None.

Area "A"

Equipment Drilling High Excavation Drill Excisate Point Procession Drill Fine Penetration Redrill Point Drill Fine Penetration Redrill Fine Penetration Redri		CUT-OFF	FF WALL EXCAVA	MOIL						CUT-OFF W	VALL CONS	LL CONSTRUCTION			
Fig Excavation Drill Redrill Drill Redrill Drill Redrill Drill Redrill Concrete Concrete Concrete Concrete Concrete Concrete CouryD.)		Fauioment		Drill Footage		Pure Drill Time		Penetration Rat	ı			Non-Spec.	Spec.	Theoretical	
# Method (F1) (F18) (F18	Drilling	Rig	Ш	E (Redrill	Drill	Redrill	Drill	Redrill (T)	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
2 DHD130A 152 13.25 11.47 02/19/93 42 35.5	Date	#	Method	(1)	į.	2	2	(ULI / LIII)		Date	20.00				
	02/17/93	2	DHD130A	152		13.25		11.47		02/19/93			42	35.5	18.3%

Total Drill Time = Average Penetration Rate =

13.25 Hours 11.47 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

At Full Depth = S-ARC North = S-ARC South =

2.2"N X 5.7"W 41.75 17.62

Quality Coring: None.

Comments:

Primary Pile # 53 Area "A"

		Overbreak	17.6%
	Theoretical	(CU.YD.)	35.7
	Spec.	Concrete (CU.YD.)	42
TRUCTION	Non-Spec.	Concrete (CU.YD.)	
WALL CONS		Grout (CU.YD.)	
CUT-OFF WALL CONSTRUCTION		Concrete	04/24/93
		Redrill (FT / HR)	
	Penetration Rate	Drill FT / HB	11.84
	6	Redrill	
	Pure Drill Time	Drill	12.92
		Redrill	
ATION	Drill Footage	<u></u>	153
FF WALL EXCAV		Excavation	DHD130A
cut-o	Equipment	Rig.	* 2
		Drilling	04/23/93

Total Drill Time = Average Penetration Rate =

12.92 Hours 11.84 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

3.25" S X 3.44" W 17.62 32.35 At Full Depth = S-ARC North = S-ARC South = Verticality Information

Quality Coring: None.

Secondary Pile # 54 Area "A"

	7110	DEE WALL EXCAVA	TION						CUT-OFF V	VALL CONS	LL CONSTRUCTION			
	5	יייייייייייייייייייייייייייייייייייייי									1000	Coco	Theoretinal	
	Fourimen	14	Drill Footage		Pure Drill Time		Penetration Hate	- 1			NON-Spec.	3	i de carea	
		Committee	- III	Radrill	Drill	Redrill	Dilli	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Cverbreak
Bullion	Ē	Cycavallor	<u> </u>	Ę	500	(SOP)	(dr/ ta/	(FT / HR)	Date		(CLI YD.)	(CC.XD)	(CC.XD)	
Date	#	Method	- L	E.	(SLL)	2			2000					
02/23/93	2	DHD130A	152		10.66		14.26		02/23/93			41.5	35.5	16.9%

Total Drill Time = Average Penetration Rate =

10.66 Hours 14.26 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

At Full Depth = Verticality Information

2.31" N X 3.6" E 32.35 22.27

S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 55 Area "A"

15.5% Overbreak 35.5 Theoretical Volume (CU.YD.) 4 Spec. Concrete (CU.YD.) CUT-OFF WALL CONSTRUCTION
Concrete Grout Concrete
Date (CU.YD.) (CU.YD.) 04/15/93 Redrill (FT / HR) Penetration Rate Drill (FT / HR) 11.33 Redrill (HRS) Pure Drill Time Drill (HRS) 13.42 Redrill 152 Drill Footage Drill (FT) CUT-OFF WALL EXCAVATION Excavation DHD130A Rig N 04/14/93 Drilling Date

Total Drill Time = Average Penetration Rate =

13.42 Hours 11.33 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

At Full Depth = S-ARC North = S-ARC South = Verticality Information

0"N/S X 2.31"W 22.27

No Overlap at Full Depth, Corrected with Conforming Pile.

Quality Coring: None.

Secondary Pile # 56 Area "A"

Ľ	TIL	EF WALL EXCAVA	MOIT						CUT-OFF V	CUT-OFF WALL CONSTRUCTION	TRUCTION			
	Tramping.	1	Drill Footage		Pure Drill Time		Penetration Rate	fe			Non-Spec.	Spec.	Theoretical	
Drilling	Rig.	Excavation		Redrill	HRS H	Redrill	Orill (FT / HR)	Redrill (FT / HR)	Concrete	Grout (CU.YD.)	Concrete (CU.YD.)	Concrete (CU.YD.)	Volume (CU.YD.)	Overbreak
3/11/93	*	DHD130A	151		11.17		13.52		03/12/93			41	35.3	16.3%

Total Drill Time = Average Penetration Rate =

11.17 Hours 13.52 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

At Full Depth = S-ARC North = S-ARC South =

9.6°S X 7.17" E No Overlap at Full Depth, Corrected with Conforming Pile. 37.84

Quality Coring: None.

Comments:

Primary Pile # 57 Area "A"

		Overbreak		15.5%
	Theoretical	Volume	(CU.YD.)	35.5
	Spec.	Concrete	(CU:VD)	41
STRUCTION	Non-Spec.	Concrete	(CU.YD.)	
WALL CONS		Grout	(CU.YD.)	
CUT-OFF WALL CONSTRU		Concrete	Date	04/06/93
	_	Redrill	(FT / HB)	
	Penetration Rate	iii.	(FT / HR)	33.19
		Redrill	(HRS)	
	Pure Drill Time	Drill	HRS)	4.58
		Redrill	Œ	
ATION	Drill Footage	Drill	6	152
FF WALL EXCAVA		Excavation	Method	XL-24
CUT-O	Equipment	Rig	, #	2
		Drilling	Date	04/03/93

Total Drill Time = Average Penetration Rate =

4.58 Hours 33.19 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

0" N/S X 2.24" E 37.84 27.63 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 58 Area "A"

		Josephan	OVERDIGEN				11.170	
	Theoretical	Vehimo	VORUME	(CU.YD.)		0.10	39.3	
	Sac	1	Concrete	(CU.YD.)		;	41.5	
TRUCTION	Minn Coor	NOI STORY	Concrete					
CUT-OFF WALL CONSTRUCTION			Group		20.00			
ICUT-OFF			Concrate	200	Calc		03/27/93	
		ate	Dodrill		מנו / ונו			
		Penetration Hate	=		(F1 / HK)		13.33	
				Hedrill	(HHS)			
		Pure Drill Time		בייו	(FIRS)		11.33	
				Redrill	Œ			
1401#		Drill Ecotoda	Olli I Colado	ايات	Œ		151	
	DEF WALL EXCAVE			Excavation	Method		DHD130A	
				Ë	. ≉		93	
				Dulling	2	Cate	03/26/93	

11.33 Hours 13.33 Feet / Hour

Total Drill Time ≃ Average Penetration Rate ≈

None

Total Redrill Time = Average Penetration Rate =

7.94" S X 4.11" W 27.63 6.47 At Full Depth = S-ARC North = S-ARC South = Verticality Information

Quality Coring: None.

Comments:

Primary Pile # 59

Area "A"

	heoretical-	Overbreak	CU,YD.)		35.5 12.7%	
	_		(CU.YD.) (CU.Y	_	40	
CUT-OFF WALL CONSTRUCTION	Non-Spec	1000	Concrete			
WALL CON		•	Grouf	77.7		
ICUT-OFF			Concrete	Dalo	04/20/93	
		١	Redrill	(FI / HD)		
		Penetration Hate	Dug.	(FI / HB)	6.91	
			Redrill	(HRS)		
		Pure Drill Time	Drill	(HRS)	21.99	
	-		Redrill	E		
A CI	NO.	Drill Footage	Drill	E)	152	
ALL ACTOR OF THE PARTY AND ALL A	HE WALL EXCAVE		Excavation	Method	DHD130A	
	0-100		Rig	*	2	
			Drilling	Date	04/19/93	

Total Drill Time ≈ Average Penetration Rate =

21.99 Hours 6.91 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

At Full Depth = S-ARC North = S-ARC South =

6.47 36.61

Quality Coring: None.

Area "A"

	CUT-0	FF WALL EXCAVA	TION						CUT-OFF WALL CONSTRUCTION	VALL CONS	TRUCTION Non-Spec	Sec	Theoretical	
	9	+	Drill Footage		Pure Drill Time		Penetration Hate				Mail Spar.		/or mo	Ownhook
Drilling	Rig	Excavation	Drill	_	Drift	Redrill		Redrill /FT / HB/	Concrete	Grant	(CU.YD.)	(CU.YD.)	(CU.YD.)	Overbioan
Date	*	Method	E	(FI)	(HHS)	(SHE)	(11/11)							
03/01/93	2	DHD130A	152		21.99		6.91		03/05/93			41	35.5	15.5%

21.99 Hours 6.91 Feet / Hour

Total Drill Time = Average Penetration Rate =

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

1.10" N X 1.90" E 36.31 20.46 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 61 Area "A"

			**************************************						CUT-OFF	UT-OFF WALL CONSTRUCTION	TRUCTION			
	0-100	OFF WALL EXCAV	ALICIA								Mon-Choc	Snor	Theoretical	
		*	I Drill Footage		Pure Drill Time		Penetration Ha	te			101-200		Vet	Amphan V
		-					:		Constitution	į		Concrete	AOMUTIE	
nilling	Big	Excavation	iji O	Redrill		Redrill		Hedrill City	Coliciate			(CU.YD.)	(CU.YD.)	
ate	*	Method	<u>E</u>		(HRS)	(HHS)	(F) / HB)	(ri / nn)	ANIO	20.10.1				
5/19/93	-	DHD130A	. 150		16.17		9.28		05/19/93			40	35.0	14.2%

Total Drill Time = Average Penetration Rate =

16.17 Hours 9.28 Feet / Hour

None Total Redrill Time = Average Penetration Rate =

Verticality Information

1.8" S X 9.76" E 20.46 27.09

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Area "A"

	-	Josephone	VOIDION			Š	%0:/	
	Theoretical		o allino	(CO.YD.)		-	5.05 20.3	
	Snor	-	Concrete	(CU.VD.)		!	8	
TRUCTION	Mon Chan	NOT Space	Concrete	(0,10)				
TCUT - OFF WALL CONSTRUCTION			Grout	(A)				
ICUT-OFF			Concrete	Dete	Daio		12/03/92	
			Redrill	67/10	ונון וונון			
		Penetration Rate	Drill	į	ובו / וחו		8.31	
			Redrill	100	SHE)	L		
		Pure Drill Time	Drill		(ZES)		18.17	
			Dodrill		E			
11014	202	Drill Footage	Bill I	5	E		151	
	PE WALL EXCAV		֡֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֡֜֜֜֜֜֡֡֡֜֜֜֡֡֜֜֜֡֡֡֡	EXCAVATION	Method		DHD130A	
			Edupina	Ş	*		-	
				Drilland	2	Calo	12/07/92	İ

Total Drill Time =

18.17 Hours 8.31 Feet / Hour

Average Penetration Rate =

None

Total Redrill Time = Average Penetration Rate =

At Full Depth = Verticality Information

o" N/S X 18.25" E 27.09

27.75 S-ARC North = S-ARC South = Quality Coring: NX/NQ cored to 160' on 4/30/93

Comments: Redrilled by accident 3/23/93 to 50'.

Primary Pile # 63 Area "A"

4.2% Overbreak 35.0 Theoretical Volume (CU,YD.) 8 Spec. Concrete (CU.YD.) CUT – OFF WALL CONSTRUCTION

Concrete Grout Concrete

CutyD.) (CU.YD.) 05/24/93 Redrill (FT / HR) Penetration Rate Drill 11.18 (FT/HB) Redrill (HRS) 13.42 Redrill (FT) 55 Drill Footage Drill (FT) CUT-OFF WALL EXCAVATION Excavation Method **DHD130A** Rig 05/22/93 Drilling Date

13.42 Hours 11.18 Feet / Hour

Total Drill Time = Average Penetration Rate =

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

7.55" N X 1.76" E 27.75 At Full Depth =

S-ARC North = S-ARC South =

No Overlap at Full Depth, Corrected with Conforming Pile.

Quality Coring: None.

Secondary Pile # 64 Area "A"

		AVA CVT 1 1 AVA VT	TION						CUT-OFF V	CUT-OFF WALL CONSTRUCTION	TRUCTION			
		I - OTT WALL EXCAVE	NO.									Saco	Thomsting	
	Continuo	+	Drill Footage		Pure Drill Time		Penetration Ha	9			NON-Spec	dog.	I I BOI CILVOI	
	Countries	1	-			-	-	III-Pad	Company	1	Concrete	Concrete	Volume	X September 5
Orilling	Ric	Excavation		Redrill	5	Hedrill	5	Hearing	Coliciere	3 5	Selection of the select		2	
2	7 *	Mathod	٤	Œ	ERS)	(HRS)	FT/HR)	FF/HR)	Date	(CU.VD.)	(CO.YD.)	(20.70.)	20.10.	
Dare	*	Menion												
04/01/93	2	XL-24	152		5.83		26.07		04/02/93			45	35.5	18.3%

5.83 Hours 26.07 Feet / Hour

Total Drill Time = Average Penetration Rate =

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

6.36" S X 8.9" E No Overlap at Full Depth, Corrected with Conforming Pile. 34.58 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 65

Area "A"

		Overbreak		14.8%	
	Theoretical.	(CU.YD.)		35.7	
	Spec.	Concrete (CU,YD.)		41	
ALL CONSTRUCTION	Non-Spec.	Concrete (CU.YD.)			
WALL CONS		Grout (CU,YD.)			
CUT-OFF		Concrete		05/10/93	
	ate	Redrill (FT / HR)			
	Penetration Rate	Drill GE / FE		9.51	
		Redrill	CULI		
	Pure Drill Time	Drill	2	16.08	
		Redrill			
MULT	Drill Footage			153	
F OFF WALL EYCAVA		Excavation	Method	DHD130A	
110		Rig	#	1	
		Drilling	Date	05/07/93	

Total Drill Time = Average Penetration Rate =

16.08 Hours 9.51 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

O" N/S X 6" E 34.58 20.73 At Full Depth = S-ARC North = S-ARC South = Verticality Information

Quality Coring: None.

Area "A"

		Jan the C	SAED SERVICE			15.5%	
	Theoretical	M-hims	Noume	(CU.YD.)		35.5	
	Cana		Concrete	(CU.YD.)		41	
CUT-OFF WALL CONSTRUCTION	Alon Cnon	NOT I OF SE	a di conce	(CU.YD.)			
WALL CONS			1				
CUT-OFF			Constitution	Coliciente	Caro	04/09/93	
			Hirton C	Teguli Li	111111111111111111111111111111111111111	- 4.44	
		Penetration Hate	-		ונו / ונוו	9.07	
		•		Hedrill	QL L		
		Pure Drill Time			(HHS)	16.75	
				Redrill	(FI)		
ATION		I Drill Footage		Drill	E	152	
SEPTIMAL EVOLATION	SEL WALL EACAV	Ť		Excavation	Method	DHD130A	
1				Rig	*	3 2	
				Drilling	Date	04/08/93	

16.75 Hours 9.07 Feet / Hour

Total Drill Time = Average Penetration Rate =

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

3.81" S X 4.13" E 20.73 31.66

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 67 Area "A"

			NO.						CUT-OFFV	F-OFF WALL CONSTRUCTION	TRUCTION			
		I - CTT WALL DACAV	NOIS								Alon Cnon	Snor	Theoretical	
			Drill Ecotade		Pure Drill Time		Penetration Hat	ite			NOIL Space		10000000	A Transfer
			200	I	л				-	1	- alaracea	alario CC	ADI MO	
Drilling	Ş	Excavation	III.O	Redrill		Hedul	5	Hedrill	COLICIER	1000			5	
בריים בר	20 ;	7	Ę	Ę	(HPS)	HRS	EH/HB	(F) HB	Date	(CO.VD.)	CU.VU.)	(CO.TO.)	77.77	
Date	*	Metrod			2									
05/18/93	-	DHD130A	150		16.83		8.91		05/20/93			88	35.0	11.3%

Total Drill Time = Average Penetration Rate =

16.83 Hours 8.91 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

0"N/SX2.11"E 31.66 31.39 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Area "A"

	heoretical	_	(CLI VT)		35.0 17.0%	
		_	Concrete	-	41	
CUT-OFF WALL CONSTRUCTION	Mon-Sper	NOT STORY	Concrete	20.00		
WALL CON			Grout	(00.10.)		
CUT-OFF \			Concrete	Dare	03/06/93	
		0	Redrill	(F1 / HR)		
		enetration Hate	Drill	(FI / HB)	7.04	
			Redrill	(HRS)		
		Pure Orill Time	Drill	(HRS)	21.32	
			Redrill	Œ		
NOIF		Drill Footage	Drill	E	150	
AVAIL EVOAVA	THE WALL EXCAVE	,	Excavation	Method	DHD130A	
+ 10		The second	Ria	*	2	
			Drilling	Date	03/05/93	

21.32 Hours 7.04 Feet / Hour

Total Drill Time == Average Penetration Rate ==

None

Total Redrill Time = Average Penetration Rate =

3.6" N X O" E/W 31.39 9.07 Verticality Information

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments: Deficient Joint Width at Full Depth, Corrected with Conforming Pile.

Primary Pile # 69

Area "A"

			NO.						TCUT-OFF W	k	L CONSTRUCTION			
		PER WALL EXCAVA	202								Mark Ores	Coco	Theoretinal	
			Drill Footbade		Pure Drill Time		Penetration Rate	ıte			Non-spec.	oner.		O + O
								-	-	1	Concrete		e ELICA	
Drilling	Rig	Excavation		Redrill	Ē	Redrill	5	Hedrill	Conciente				(X)	
2	D *	Method	٩	Œ	(HRS)	(HRS)	FT/HR)	(FI/HB)	Date	(50.10.)	10.10	יאן יאי	100.100	
Dale	*	No inchia												
04/20/93	2	DHD130A	152		13.40		11.34		04/20/93			40	35.5	12.7%

Total Drill Time = Average Penetration Rate =

13.40 Hours 11.34 Feet / Hour

None Total Redrill Time = Average Penetration Rate =

Verticality Information

5.11" S X 2.39" W 9.07 35.49 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 70 Area "A"

	1	AVA CVO LIVER TO	INC.						CUT-OFF V	WALL CONS	TRUCTION			
		プト WALL EACAVA											Theoretical	
	Comming	+	Drill Footage		Pure Drill Time		Penetration Ra	te			Non-spec.	apac.	Hadrenda	1
Drilling	Rig	Excavation		Redrill	Drill	Redrill		Redrill (ET / HB)	Corncrete	Grout	Concrete (CU.YD.)	Concrete (CU.YD.)	(CU.YD.)	Overbreak
Date	*	Method	Ē	(FI)	(CHE)	CHL		71117		1000				
02/09/93	2	DHD130A	150		18.08		8.30		92/10/93			43.5	35.0	24.2%

18.08 Hours 8.30 Feet / Hour

Total Drill Time = Average Penetration Rate ==

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

1.92" N X .32" W

35.49 17.46 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile #71

Area "A"

		Overhook			11.3%	
	Theoretical	Volume	(CU.YD.)		35.0	
	Spec.	Constituto	CIXID	113	8	
STRUCTION	Non-Spec.	Comments	CUXIO	777		
WALL CONS				20.00		
CUT-OFF V			Concrete	Naio	05/14/93	
	ate.	П	Hedrill Fedulation	ובויושו		
	Penetration Bate	100000000000000000000000000000000000000		(FI / HB)	10.17	
		1	Redrill	(HH2)		
	Dura Drill Tima	-1		HKS	14.75	
			Redrill	(FI)		
NOITY	Drill Footbago	Oilli roomide	Orill	<u>E</u>	150	
CEE WALL EXCAVA	THE PROPERTY.		Excavation	Method	DHD130A	
C 111			Rig	*	-	-
٢			Drilling	Date	05/13/93	

Total Drill Time = Average Penetration Rate =

14.75 Hours 10.17 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

Verticality Information
At Full Depth =
S-ARC North =
S-ARC South =

3,52°S X 3,52°W 17,46 31.10

Quality Coring: None.

Secondary Pile # 72 Area "A"

UT-OFF V uipment Rig	WALL EXCAVA Excavation Method	TION Drill Footage Drill (FT)	Redrill (FT)	Pure Drill Time Drill (HRS)	Redrill (HRS)	Penetration Rate Drill (FT / HR)	Redrill (FT / HR)	CUT-OFF M Concrete Date	MALL CONSTRUCTION Non-Spec Grout Concrete (CU.YD.)	Non-Spec. Concrete (CU.YD.)	Spec. Concrete (CU.YD.)	Theoretical Volume (CU.YD.)	Overbreak
픕	HD130A	151		21.05		71.7		12/12/92			40.5	35.3	14.9%

21.05 Hours 7.17 Feet / Hour

Total Drill Time = Average Penetration Rate =

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

0" N/S X .25" W 31.10 34.02 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile #73

Area "A"

	Theoretical	Vactoria Combook	Volume Cyclic Col. (CC)		35.5 12.7%	
	Spec		Concrete	100	40	
L CONSTRUCTION	Non-Snec	1401 0000	Concrete	20.00		
WALL CONS			Grout	177.00		
ICUT-OFF WALL (Concrete	Date	04/06/93	
			Redrill	(FI / HH)		
		Penetration Hat	E C	(FI/HR)	26.57	
			Redrill	(HRS)	•	
		Pure Drill Time	Drill	(HRS)	5.72	
			Redrill	<u>E</u>		
VEIGNI	1011	Drill Footage	Drill	Œ	152	
PENALL EVENIA	-OFF WALL EACAVE	*	Excavation	Method	XL-24	
		Fortingen	Rig	*	2	
_			Drilling	Date	04/05/93	

Total Drill Time = Average Penetration Rate =

5.72 Hours 26.57 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

5.72" N X 1.91" W At Full Depth = S-ARC North = S-ARC South =

34.02

Quality Coring: 6* Joint 73/74 to 24' on 5/01/93

Secondary Pile #74 Area "A"

1	OFF WALL EXCAVATION	NOITA						CUT-OFF \	WALL CONS	CONSTRUCTION			
5	OL WALL LADA	1000								Alon Choc	Snor	Theoretical	
morrian	Joint	Drill Footage		Pure Drill Time		Penetration Ha	Ite			NOTI-Spare	i	The section	
	100								1	Connection	Contracto		
5	Excavation	Diil	Redrill		Redri	5	Hedrill	Concrete	1005	COLCIER			
•	Mothod	Ę	Ę	HRS	HRS	EH/HB	(FT / HR)	Date	(CC.YQ.)	(CU.YD.)	(CU.YU.)	CO.YO.)	
#	Menion												
	2 DHD130A	152		23.73		6.41		02/22/33			41.5	35.5	16.9%

23.73 Hours 6.41 Feet / Hour

Total Drill Time = Average Penetration Rate =

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

.65" S X 4.85" E 14.11 10.85 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile #75

Area "A"

	1	T DEE WALL EYCAVA	MOLL						CUT-OFF	T-OFF WALL CONSTRUCTION	TRUCTION			
	2	JET WALL LAUNY	100								Mon Coo	Cnoc	Theoretical	
	For inmen	14	Drill Footage		Pure Drill Time		Penetration Hate				NOIL-Spec	oper.	I I Solotical	A Transfer
Drilling	Rig	Excavation	Drift	Redrill	Orill	Redrill	Dirich Contract of the contrac	Redrill	Concrete	Grout	Concrete	Concrete	(CU.YD.)	Cverbreak
Date	#	Method	(FT)	Œ	(HRS)	CHHS	CL/ LH	(נו / ונו)	רמום	200	1221121			
05/08/93	-	DHD130A	151		12.83		11.77		05/10/93			40	35.3	13.4%

Total Drill Time = Average Penetration Rate =

12.83 Hours 11.77 Feet / Hour

None Total Redrill Time = Average Penetration Rate =

Verticality Information

8.30" S X 1.5" W 10.85 42.62 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 76 Area "A"

	C 11 13	FE WALL EYCAVA	TION						CUT-OFF WAL	VALL CONS	TRUCTION			
	2	LL VARLE LACAVA	1011								Alex Care	Snoo	Thompsinel	
	For inmen		Drill Footage		Pure Drill Time		Penetration Hate			•	NOT - Spec.	3	nononon.	
Drilling	Rig	Excavation	Orill	Redrill	Drill	Redrill	Drill	Redrill	Concrete	Grout	Concrete (CU YD.)	Concrete (CU.YD.)	(CU.YD.)	Overbreak
Date	*	Method	(FI)	E.	(SHE	2	(ULL)	7	Caro					
03/31/93	0	XL-24	152		7.25		20.97		04/01/93			43	35.5	21.1%

7.25 Hours 20.97 Feet / Hour

Total Drill Time = Average Penetration Rate =

Total Redrill Time = Average Penetration Rate =

7.94" N X 5.72" E Verticality Information

42.62 8.51 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments: Deficient Joint Width at Full Depth, Corrected with Comforming Pile.

Primary Pile # 77 Area "A"

Ľ	111	FYCAVA	MOIL						ICUT-OFF	UT-OFF WALL CONSTI	TRUCTION			
		*	Drill Footage		Pure Drill Time		Penetration Ra	te			Non-Spec.	Spec.	Theoretical	
Drilling	Rig	Θ.	<u>E</u>	Redrill	Drill	Redrill	Drill FT (HB)	Redrill (FT / HR)	Concrete	Grout (CU,YD.)	Concrete (CU.YD.)	Concrete (CU.YD.)	Volume (CU.YD.)	Overbreak
Date	#	Memod			(SILL)	Carrie	711111111111111111111111111111111111111	A						
05/20/93	-	DHD130A	151		10.42		14.49	٠	05/21/93			88	35.3	7.8%

Total Drill Time = Average Penetration Rate =

10.42 Hours 14.49 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

.5" S X 0" E/W 8.51 22.50

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile #78 Area "A"

		Overbreak		35.5 19.7%	
	_	(CU.YD.)		42.5	
	Spec.	Concrete (CU.YD.)		45	
CONSTRUCTION		Concrete (CU,YD.)	╬		
WALL CON		Grout	JL		
CUT-OFF		Concrete		04/22/93	
	H	Redrill FT / HR			
	Penetration Rate	Drill (ET / HB)		9.55	The state of the s
		Redrill	2		
	Pure Drill Time	Drill	2	15.92	
		Redrill			
ATION	Drill Footage	E (152	
DEF WALL EXCAVA		Ž.	Memod	DHD130A	
CIT-C	Fortinent	Rig	*	-	
		Drilling	Date	04/22/93	

15.92 Hours 9.55 Feet / Hour

Total Drill Time = Average Penetration Rate =

Total Redrill Time = Average Penetration Rate =

Verticality Information

At Full Depth = S-ARC North = S-ARC South =

3.02° S X 4.03° W 22.50 28.85

Quality Coring: None.

Comments:

Primary Pile #79 Area "A"

COL	-OFF WALL EXCAVA	ATION						CUT-OFF WALL CONSTRUCTION	VALL CONS	TRUCTION			
-dub-	ioment	Drill Footage		Pure Drill Time		Penetration Rate	ı			Non-Spec.	Spec.	Theoretical	
Drilling Rig	Excavation	E	Redrill	Orill	Redrill	Drill OH / HB	Redrill (FT / HR)	Concrete	GU.YD.)	Concrete (CU,YD.)	Concrete (CU,YD.)	(CU,YD.)	CVerbreak
##	Memod		7,1	2	(A11)								
16/16/93	2 DHD130A	150		11.08		13.54		06/16/93			9	35.0	14.2%
								1					

Total Drill Time = Average Penetration Rate =

11.08 Hours 13.54 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

1.13" S X 0" E/W 28.85 29.56 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 80 Area "A"

	CITTO	FF WALL EXCAVA	TION						CUT-OFF V	VALL CONS	TRUCTION			
	Company		Drill Footage		Pure Drill Time		Penetration Rate	ite			Non-Spec.	Spec.	Theoretical	
Drilling	Rig	Q,	lijo (Redrill	Drill	Redrill	Drill GT / Tg	Redrill (FT / HB)	Concrete	Grout	Concrete (CU.YD.)	Concrete (CU,YD.)	Volume (CU.YD.)	Overbreak
Date	#	Method	(FI)		(Suu	2	(111)		2	1000				
03/11/93	8	CLUSTER	8		5.92		10.47		03/16/93		6		14.5	31.2%
04/15/93	-		83	ß					04/15/93		12		12.1	-1.2%
05/28/93	-	DHD130A	150	ଷ	7.83	3.17	11.24	19.56	05/28/93			40	35.0	14.2%

Average Penetration Rate = Total Drill Time =

13.75 Hours 10.91 Feet / Hour

Total Redrill Time = Average Penetration Rate =

3.17 Hours 35.96 Feet / Hour

Verticality Information

1" N X 1.76" E

83.88 88.88 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments: Lost cluster bit in hole 4/15/93

Primary Pile # 81 Area "A"

	Non-Spec. Spec. Theoretical	Drill Redrill Drill Redrill Concrete Grout Concrete Volume Uverbreak		150 10.17 14.75 06/04/93 41.5 35.0 18.5%	
NOL	Drill Footage Pure Dr		(F1) (F1) (HF	150	
CUT-OFF WALL EXCAVAL	Foundati	Rig Excavation	# Method	2 DHD130A	
		Drilling	Date	06/04/93	

Total Drill Time = Average Penetration Rate =

10.17 Hours 14.75 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

6.54" N X 2" E 33.89 16.17

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile #82 Area "A"

	0-110	OFF WALL EXCAVA	ATION					_	CUT-OFF W	VALL CONS	TRUCTION			
	Fallipan	1t	Drill Footage		Pure Drill Time		Penetration Rate	fe			Non-Spec.	Spec.	Theoretical	
Drilling	Rig	ă		Redrill	Drill	Redrill	Drill FT / HB)	Redrill (FT / HR)	Concrete	Grout (CU.YD.)	Concrete (CU.YD.)	Concrete (CU.YD.)	Volume (CU.YD.)	Overbreak
Date	#	Mellod	7111		2	2								
11/09/92	-	DHD130A	35		1.68		20.83		11/11/92		9		8.2	-26.6%
11/17/92	-	DHD130A	40	35	2.00	1.55	2.50	22.58	11/18/92		12		9.3	28.5%
12/04/92	_	DHD130A	151	40	11.84	1.83	9.38	21.86	12/08/92			83	35.3	75.8%

Total Drill Time =

15.52 Hours 9.73 Feet / Hour

Average Penetration Rate =

3.38 Hours 22.19 Feet / Hour

Total Redrill Time = Average Penetration Rate =

.38" N X 0" E/W 16.17 At Full Depth = Verticality Information

S-ARC North = S-ARC South =

Quality Coring: Cored by COE 1/20/93

Comments: At 32' connected with old Soletanche panel

Primary Pile #83 Area "A"

18.5% Overbreak heoretical Volume (CU.YD.) 41.5 Spec. Concrete (CU.YD.) Non-Spec. Concrete (CU.YD.) CUT -- OFF WALL CONSTRUCTION Grout (CU.YD.) 06/08/93 Concrete Date Redrill (FT / HR) Penetration Rate Drill (FT / HR) 12.68 Redrill (HRS) 11.83 Redrill (F) Drill Footage Drill (FT) 3 Excavation DHD130A Equipment Rig 2 06/08/93 Drilling Date

11.83 Hours 12.68 Feet / Hour

None

Total Drill Time = Average Penetration Rate =

Total Redrill Time = Average Penetration Rate =

Verticality Information

4.03" N X 1.5" E At Full Depth =

31.52 S-ARC North = S-ARC South =

No Overlap at Full Depth, Corrected with Conforming Pile.

Quality Coring: NS/NQ core drilled to 59.8' in pile 83 and exited into pile 84which was continued to 156.6' depth.

Secondary Pile #84 Area "A"

	1	SEE WALLEYCAVA	NOIL						CUT-OFF V	VALL CONS	TRUCTION			
			100		Dura Dail Timo		Penetration Rate	a			Non-Spec.	Spec.	Theoretical	
	Edutomen	_	Dull rookage		-1		The state of the s				Contraction	Compresso	Volume	Overhreak
Drilling	Rig	ă	Drill	Redrill		Redrill		Hedrill (1)	Concrete		(CI VD)	(CU.YD.)	(CU.YD.)	
Date	#	Method	(FT)	(FI)	(SHP)	(SHE)	נונו / נונו	(UL) 110	Caro	1.00				
			i,		10.67		2		02/04/93		4		35.3	24.8%
02/02/93	-	DHD130A	6		107		1							
			5	Ĉ					86/90/20		16		8.9	80.3%
02/05/93	_		8	8										
	•	40070110	9	14		7.75		19.48	06/05/93			4	35.0	17.0%
06/02/93	_	DHUISON	3	2		:								

12.67 Hours 11.84 Feet / Hour

Total Drill Time = Average Penetration Rate =

7.75 Hours 24.39 Feet / Hour

Total Redrill Time = Average Penetration Rate =

Verticality Information

At Full Depth ==

S-ARC North = S-ARC South =

6.04" S X 9.31" W No Overlap at Full Depth, Corrected with Conforming Pile. 32.04

Quality Coring: See pile 83

Comments:

Primary Pile #85

Area "A"

		_	all poor	-		41 35.0 17.0%	
STRUCTION	_	_	Concrete	-			
-OFF WALL CON		_	Concrete	Date (CU.YD.)		06/18/93	
CUI	oto		_	FT/HB)			
	Danadention Date	Perenandi		(FT/HR)		12.95	
	1.	ure Unii i ime		(HRS) (HRS)		11.58	
			Redrill	<u>E</u>		0	
VATION	ATION		Diil	Ę		150	
T OFF WALLEYON	OL WALL LAND	- T	Excavation	Method	3000	PHD130A	
HIO	000	Forgoment	Bi	*	*	33	
			Drilling	D to C	כשום	06/17/93	

Total Drill Time = Average Penetration Rate =

11.58 Hours 12.95 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

1.76" S X 6.04" W At Full Depth =

32.04 28.98 S-ARC North = S-ARC South =

Quality Coring: None.

Area "A"

		The state of the s	INC.E.						CUT-OFF V	WALL CONSTRUCT	TRUCTION			
		UP WALL EXCAV	201								20-0	Choc	Theoretical	
	Comment ID	ţ	Drill Footage		Pure Drill Time		Penetration Rate	- 1			Non-spec.	900	Notice of	Chartrack
Drilling	Rig	ă	Drill	Redrill	Drill	Redrill		Redrill (ET / HB)	Concrete	Grout	Concrete (CU.YD.)	(CU.YD.)	(CU.YD.)	Overbroan
ate	#	Method	(FI)	(F)	(SHE)	(SILL)	מנו / נוו		2					
56/22/93	-	XL-24	150		7.09		21.16		05/26/93			43.5	35.0	24.2%

7.09 Hours 21.16 Feet / Hour

Total Drill Time = Average Penetration Rate =

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

0" N/S X 3.52" W 28.98 20.01

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile #87

Area "A"

									CLIT-OFFV	WALL CONSTRU	TRUCTION			
		DEF WALL EXCAVA	Z										Theorem	
					Dure Drill Time		Penetration Rate	te			Non-Spec.	Spec.	Ineoretical	
	TO THE PERSON	=	DEII LOOKS OF		_			ı		4	Comments	Contrado	Volume	Overtreak
1	, i	Evestation	ii.C	Redrill		Redrill	Ē	Hedrill	Concrete	Cioni	Concrete	20000		
Silling.	2		Ę	Ę	(Ape)	(HDC)	FH / HB	(FT / HR)	Date	(CC:VD)	(CU.YD.)	(CO, YD.)	(CO.YD.)	
Date	#	Method			2	2								
06/24/93	2	DHD130A	150		11.08		13.54		06/24/93			41	35.0	17.0%

Total Drill Time = Average Penetration Rate ==

11.08 Hours 13.54 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

3.78" S X 1.76" E 20.01 19.76 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 88 Area "A"

	110	PENANT EVEN	MOIT						CUT-OFF V	VALL CONS	JT-OFF WALL CONSTRUCTION			
	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	THE WALL EACH	201								10-0	0200	Theoretical	
	Fortimen	+	Drill Footage		Pure Drill Time		Penetration Rate	je je			Non-spec.	obec:	Heorense	
Drilling	Rig	ā	Orill	Redrill	Drill Drill	Redrill		Redrill (T)	Concrete	Grout	Concrete	Concrete (CU.YD.)	(CU.YD.)	Overbreak
Date	*	Method	(FI)	(FI)	2	CHIL	מנו / ויווו	111111111111111111111111111111111111111	Date	100				
04/08/93	2	DHD130A	152		10.00		15.20		04/10/93			84	35.5	35.2%

10.00 Hours 15.20 Feet / Hour

Total Drill Time' = Average Penetration Rate ==

Total Redrill Time = Average Penetration Rate =

8.1" S X 4.13" E 19.76 30.20 At Full Depth = S-ARC North = S-ARC South = Verticality Information

Quality Coring: None.

Comments:

Primary Pile # 89 Area "A"

		Overbreak		17.0%	
	Theoretical	(CU.YD.)		35.0	
	Spec.	Concrete (CU,YD.)		41	
STRUCTION	Non-Spec.	Concrete			
WALL CONSTRUCTION		Grout	100		
CUT-OFF		Concrete	A CORNE	06/23/93	
	ate	Redrill / Ta/			
	Penetration Rate	Drill	(UII / LIII)	15.38	
		Redrill	CHIL		
	Pure Drill Time	E G	(SHE)	9.75	
		Redrill	(F1)		
MOLT	Drill Footage			. 150	
FE WALL EXCAVA	+	Excavation	Method	DHD130A	
	Forning	Rig	*	8	
		Drilling	Date	06/22/93	

Total Drill Time == Average Penetration Rate =

9.75 Hours 15.38 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

5.54" S X 3.52" E 30.20 27.35

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 90 Area "A"

_	110	EE WALLEYCAVA	NOIT						CUT-OFF V	VALL CONS	TRUCTION			
	2	יייייייייייייייייייייייייייייייייייייי	Deill Contrage		Dura Drill Tima		Penetration Rate	ite.			Non-Spec.	Spec.	Theoretical	
	Edulomen	1	Dill ronage		200	Ī			-		Connector	Concrete	Volume	Overhreek
Drilling	Rig	Excavation	Drill	Redrill	E O	Redrill		Hed i	Concrete		Colicial			No construction
Date	*	Method	Œ	E	(HRS)	(HHS)	(FI / HH)	(דון / דוק)	Dalle	20.00	20.00			
00/47/03	•	DHD1304	8		1.25		27.20		02/18/93		9		6.7	28.0%
26/11/20														
	,		8	76	45.00	0.50	4.83	98.00	03/02/93		Z		21.5	151.4%
03/05/93		CLUSIER	36	\$	3	3	}							
						200	200	47.00	06/19/03			40.5	35.0	15.6%
06/11/93	8	DHD130A	150	26	6.41		3		200					

Total Drill Time = Average Penetration Rate =

19.66 Hours 7.63 Feet / Hour

5.83 Hours 21.61 Feet / Hour

Total Redrill Time = Average Penetration Rate =

Verticality Information

5.03" S X 5.54" E

27.35 38.69 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile #91 Area "A"

	CIT-D	TEE WALL EXCAVA	MOIT						CUT-OFF V	VALL CONS	TRUCTION			
	Fortimen	1	Drill Footage		Pure Drill Time		Penetration Rate	te			Non-Spec.	Spec.	Theoretical	
Drilling	Rig	Excavation	Drill	Redrill	Drill	Redrill	Dull	Redrill	Concrete	Grout	Concrete	Concrete	(CU,YD.)	Overbreak
Date	#	Method	(FI)	Ē	(SHE)	(ZHZ)	מט / ועו	מנו / נונו	Caro	100.00				
06/22/93	2	DHD130A	150		10.17	•	14.75		06/22/93			42.5	35.0	21.3%

Total Drill Time = Average Penetration Rate =

10.17 Hours 14.75 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

5.03" N X 2.51" E 38.69 20.48 At Full Depth = S-ARC North = S-ARC South = Verticality Information

Quality Coring: None.

Secondary Pile # 92 Area "A"

CUT-OFF WALL CONSTRUCTION	Special Specia	10000	CONCINE CONCINE CONCINE	TOTAL MAGNING CONTRACT TO THE PARTY TO THE P	(CO. YO.)		151 11.67 12.94 03/22/93 52 35.3 47.5%	
		-		Dull	(HRS)		11.67	
i VOIE	NOIN	Drill Footage		Ori			151	
ALL DAY I DAY	JEE WALL EACAVA	4.	1	Excavation	Mathod	Menion	DHD130A	
Ė		- Company		E.	2 4	*		
				Drilling		Uare	03/22/93	

Total Drill Time = Average Penetration Rate =

11.67 Hours 12.94 Feet / Hour

None

Total Redrill Time = Average Penetration Rate ==

1.25" N X 1.25" W Verticality Information

At Full Depth = S-ARC North = S-ARC South =

20.48

Quality Coring: None.

Comments:

Primary Pile # 93 Area "A"

		James V.	Overbreak		15.6%	
	Theoretical	1	(CU.YD.)		35.0	
	Chan	door.	Concrete (CU,YD.)		40.5	
TRUCTION	Man Coop	MOII Spec.	Concrete	1001100		
CUT-OFF WALL CONSTRUCTION			Grout	20.00		
CUT-OFF			Concrete	Care	05/24/93	
		ate	Redrill	(FI / NR)		
		Penetration Rate		(FI / HH)	. 15.12	
			Redrill	(HKS)		
		Pure Drill Time	EQ.	(HHS)	9.92	
			-	Œ		
ATION	201	I Drill Footade	Drill	E	150	
TE WALL EVEN	SEL WALL DAGS	*	Excavation	Method	DHD130A	
1		Continuo	Rig	*	1	
			Drilling	Date	05/24/93	

Total Drill Time = Average Penetration Rate ==

9.92 Hours 15.12 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

At Full Depth = S-ARC North = S-ARC South =

1.75" N X 1.75" W 27.44 No Overtap at Full Depth, Corrected with Conforming Pile.

Quality Coring: None.

Secondary Pile #94 Area "A"

		Overhrenk				29.6%	
		Č				10	
	Theoretical	Votime		(CO.TO.)		35.5	
	Spec.	Concrete		CO.YD.)		46	
LL CONSTRUCTION	Non-Spec.	Constant		(CU.YU.)			
WALL CONS		4	פוסחו	(CU.YD.)			
CUT-OFF WALI			Concrete	Date		04/06/93	
	ife	Г	Hedri	EH/FE			
	Penetration Rate		=======================================	FT/HB		13.13	
			Redrill	(HRS)	,		
	Prine Orill Time	Į	- E	(HRS)		11.58	
			Redrill	Ē			
NOIT	Drill Ecopogo	DIM I Ways		Ę		152	
EE WALL EXCAVA	TANKE LANGUE		Excavation	100	Mento	DHD130A	
TIL	<u> </u>		Big	P =	#	2	
Ľ		Ĺ	Deiling	20.00	Uate	04/06/93	

Total Drill Time = Average Penetration Rate =

11.58 Hours 13.13 Feet / Hour

Total Redrill Time = Average Penetration Rate ==

None

Verticality Information

10.5" S X 12.71" E No Overlap at Full Depth, Corrected with Conforming Pile. 39.19 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 95 Area "A"

	FIIO	SECUMENT EYCAVA	NOIT						CUT-OFF WALL CONSTRUCTION	VALL CONS	TRUCTION			
	100	JEE WALL EACAY	101								Mon-Choc	Spec	Theoretical	
	Octobrion 10	*	I Orill Footage		Pure Orill Time		Penetration Hate	ate			Mail Space		10000	
		1		Ī					A	4	Converse	alaurata	e E I C	Constitution
Drilling	Rid	Excavation		Redrill	Ē	Hedrill	5	Tager (Concrete				(A)	
ote C	*	Method	Œ	Œ	EBS)	HRS	FI/HH	FI/HH)	Lare	(20.10.)	20.00	200.00	2	
Caro														
05/11/93	-	DHD130A	153		11.17		13.70		05/12/93			4	35.7	12.0%

Total Drill Time = Average Penetration Rate ==

11.17 Hours 13.70 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

2.77" N X 4.03" E 39.19 23.57

Verticality Information

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 96 Area "A"

		Cverbreak		54.6%	
	_	(CU.YD.)		35.3	
	Spec.	Concrete		54.5	
TRUCTION	Non-Spec.	Concrete			
UT-OFF WALL CONSTRUCTION		Ground	100		
CUT-OFF \		Concrete	Caro	02/12/93	
	ate	Redrill (FT / LIP)	(UII) 131		
	Penetration Re		LI / LIM	6.87	
		Redrill	CHILD		
	Pure Drill Time	Drill Orill	CHH	21.98	
		Redrill	(1)		
MION	Drill Footage		(F)	151	
FF WALL EXCAVA		Excavation	Method	DHD130A	
CIT-0	Fairing	Rig	*	2	
		Drilling	Date	02/12/93	

21.98 Hours 6.87 Feet / Hour

Total Drill Time = Average Penetration Rate =

None

Total Redrill Time = Average Penetration Rate ==

Verticality Information

.63" N X 4.75" E 23.57 28.82

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 97 Area "A"

	CITIO	NEE WALL EXCAVA	NOIL						CCT-OFF V	CUT-OFF WALL CONSTRUCTION	TRUCTION			
		אירב באסטיי			111						Alon-Chor	Spec	Theoretical	
	Fourinmen	-	Drill Footage		Pure Unil Ime		Penetration Hate	- 1			300	-		
Orilling	Ric	Excavation	Drill	Redrill	Drill	Redrill	Drill	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Cverbreak
S of S	2 *	Method	E	Œ	(HRS)	(HRS)	(FT/HR)	(FT / HR)	Date	(CU.YD.)	(CU.YD.)	(CU:VD:)	(CU.YD.)	
Calc	-													
06/10/03	0	DHD130A	150		10.92		13.74		06/18/93			4	35.0	17.0%
26/01/20	J													

Total Drill Time = Average Penetration Rate =

10.92 Hours 13.74 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

3" N X 1.5" W 28.82 36.61 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Area "A"

	,	A	CVerbreak			31.5%	
	Theoretical	14-1-	Volume	(CU.VD.)		35.7	
	Spec		Concrete	(CC.XQ)		47	
TRUCTION	Non-Spec	1000	Concrete	(CC.YD.)			
CUT-OFF WALL CONSTRUCTION		_	Grout		╙		
CUT-OFF			Concrete	Date etc		03/10/93	
	040	OI nate	Redrill	(FT / HR)			
	Denomina D	referance	E O	(FT / HB)		8.27	
			Redrill	(HDC)	2		
		Fure Dall I me	Drill	ADD	2	18.50	
			Redrill	Ę	1		
MOIT			Drill	E		153	
FF WALL FXCAVA		-	Excavation	To the second	Memod	DHD130A	
OHIT-O	3	Faurinmen	Sign	2	*	2	
_			Crilling	5	Date	03/08/93	

Total Drill Time = Average Penetration Rate =

18.50 Hours 8.27 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

11.7" N X 6.5" W 36.61 At Full Depth = S-ARC North = S-ARC South =

No Overlap at Full Depth, Corrected with Conforming Pile.

Quality Coring: None.

Comments:

Primary Pile # 99

Area "A"

Total Drill Time = Average Penetration Rate =

11.75 Hours 12.77 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

At Full Depth = S-ARC North = S-ARC South =

1" S X 4.11" W
No Overlap at Full Depth, Corrected with Conforming Pile.
28.11

Quality Coring: None.

Secondary Pile # 100 Area "A"

		James	Valoria de la composición della composición dell		3 36.1%	
	Theoretical	1/04:00	(CU.YD.)		35.3	
	Spec		COLICION		48	
L CONSTRUCTION	Alon-Coor	Mail spec.	Concrete	200		
WALL CONS			Ground Constant	20.10.)		
CUT-OFF			Concrete	Date	03/26/93	
		- 1	Redrill	(FI / HR)		
		Penetration Hate	Drill	(FI / HB)	14.62	
		•	Redrill	(HHS)		
		Pure Drill Time	lino Orill	(HRS)	10.33	
			Redrill	(EI)		
I CIT	202	I Drill Footage	Duil	Œ	151	
AVA CVT	JEE WALL EXCAVE	+7	Excavation	Method	DHD130A	
		The state of	Rig	*	-	
			Orilling	Date	03/26/93	

10.33 Hours 14.62 Feet / Hour

Total Drill Time = Average Penetration Rate =

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

0" N/S X 5.72" W 28.11 At Full Depth =

32.72 S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 101

Area "A"

35.0 Theoretical Volume (CU,YD.) \$ Spec. Concrete (CU,YD.) Non-Spec. Concrete (CU,YD.) CUT-OFF WALL CONSTRUCTION Grout (CU.YD.) 05/27/93 Concrete Redrill (FT / HR) Penetration Rate Drill (FT / HR) 15.79 Redrill (HRS) Pure Drill Time Drill (HRS) 9.50 Redrill (FI) Drill Footage Drill (FT) 8 CUT-OFF WALL EXCAVATION Excavation Method DHD130A quipment Rig # 05/27/93 Drilling Date

14.2%

Overbreak

Total Drill Time = Average Penetration Rate =

9.50 Hours 15.79 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

5" N X 1.5" W 32.72 14.47 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 102 Area "A"

		,							1440	01100	TO TO			
	DE TI	TIMALI EYCAVA	MOIT						20-01-0	VALL CONS	100 ION			
		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1011								Man Chan	Cons	Theoretical	
	Continuon		I Drill Footsde		ure Drill Time		enetration Hate	•			Maria Spare	chor.		
	Tourn Can		200	Ť		-		Dodrill	Concrete	1	Concrete	Concrete	Volume	Seeples
D. Illino	.50	Typestation		Hedri	=======================================	Hedu	= 5		201212	3			100000	
	Ž	- Vocahanon		(10000	1007	(dH/ LJ/		Pate		(CO.AD)	(CC.YD.)	(CU.YD.)	
2	*	Method	=	Ē	(SHE	2	7			1:2:12:			077	27 00/
Dale		50	-		200		21 89		11/09/92		23		0.4	27.75
11/00/02	+	DHD130A	3		2/2		30:13	-	1000		101		44.5	27 60/
0/00/			8	8	BOO	2 40	25.00	25.00	11/17/92		10.01		2	90.13
11/17/9	_	CHUTCA	8	3	3	1	3			t	14100	CHIME	I IVO DII E	
00,00	,	Authorities	146	8	899	-88	12.69	33.51		LET OFFI	- North			
11/23/94	7	2000	2	3	3		100	15 00	00/00/00			42	35.3	%1.6
00,00,00	•	OTTOTION	-22	146	080	3.50	0.0	3	26/20/20					
(13/03/3			2		2010									

Total Drill Time =

10.25 Hours 14.73 Feet / Hour

Average Penetration Rate =

7.45 Hours 35.97 Feet / Hour

Total Redrill Time = Average Penetration Rate =

1.9'S X 0'E/W Verticality Information

14.47 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 103 Area "A"

17.0% Overbreak 35.0 heoretical Volume (CU.YD.) 4 Spec. Concrete (CU.YD.) CUT-OFF WALL CONSTRUCTION

Concrete Grout Concrete

Date (CU.YD.) (CU.YD.) 06/04/93 Concrete Date Redrill (FT / HR) Penetration Rate Drill (FT / HR) 15.26 Redrill (HRS) Pure Drill Time Drill (HRS) 9.83 Redrill (FT) Drill Footage Drill (FT) 35 CUT-OFF WALL EXCAVATION Excavation DHD130A 8 ig ≉ 06/03/93 Drilling Date

Total Drill Time = Average Penetration Rate ==

9.83 Hours 15.26 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

o' N/S X o' E/W 29.35 21.10

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 104 Area "A"

_	1	W. A COVER LINE	I WOLL						CUT-OFF V	VALL CONS	TRUCTION			
		PE WALL EXCAV	201								Alan Caca	Spec	Thorrotica	
	and the same	+	Drill Footage		Pure Drill Time		Penetration Hate	Ite			NOI-Space	300		
		1	2000		١.		7	Dirition.	Concession	1	Concrete	Concrete	Volume	YES CONS
Driffero	, id	Excavation		Redrill		Hedrill	5		COLCIONA	1000				
S I	2	7.4.4	Ę	Ę	HBS	HRS	FI/HB	FT/HB)	Date	CU.YU.)	(CO.YD.)	(50.10.)	(70.10.)	
Date	*	Metrod												
04/16/93	2	DHD130A	155		15.93		9.73		04/17/93			18	36.2	54.7%

Total Drill Time = Average Penetration Rate =

15.93 Hours 9.73 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

3.65" S X .66" E 21.10 33.59 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 105

Area "A"

		Chartrack	Nai Dian		12.0%	
	Theoretical	_	(CU:YD.)		35.7	
	Spec.	-	(CU,YD.)		40	
RUCTION	Non-Spec.		(CU.YD.)			
CUT-OFF WALL CONSTRUCTION			CL AD	112		
CUT-OFF V			Concrete	Cana	05/12/93	
	40	1	Redrill	W. 1. F. I. I. I.		
	O market D	religion nate		ונון / ונון	13.50	
		1	Redrill	TH2)		
		Fure Unil I me	Drill	HRS	11.33	
			Redrill	(EI)		
MOIT		Drill Footage	Drill	(ED)	153	
SEE WALL EYCAV	JET WALL LAUAV	+	Excavation	Method	DHD130A	
110	100	Fortininen	Rig	#	_	
			Drilling	Date	05/10/93	

11.33 Hours 13.50 Feet / Hour

Total Drill Time = Average Penetration Rate =

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

At Full Depth = S-ARC North = S-ARC South =

1.76" N X 1.5" W 33.59 No Overlap at Full Depth, Corrected with Conforming Pile.

Quality Coring: None.

Area "A"

14.15 Hours 10.74 Feet / Hour

Total Drill Time = Average Penetration Rate =

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

9.78" S X 8.15W No Overlap at Full Depth, Corrected with Conforming Pile. 38.97 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 107

Area "A"

		3	¥			14.2%	
		4	CVentionary				
	Theoretical	7-7-1	Non	(CU.YU.)		35.0	
	Spec	1	Concrete	(CU.YD.)		40	
TRUCTION	Non-Snor	-	Concrete	(CU.YD.)			
CUT-OFF WALL CONSTR			Grout	(CU.VD.)			
CUT-OFF			Concrete	Date		05/20/93	
			Redrill	(FT / HR)			
		Penetration Hate	Ē	(FT / HB)		12.42	
			Redrill	(HRS)			
	ľ	Pure Drill Ime	Drill	HRS		12.08	
			Redrill	6			
NOIL		Drill Footage	Drill	Œ		150	
SEE WALLEYCAW	THE PARTY IN	-	Evesyation	Mathod	None in	DHD130A	
		- CHINDEN	, id	2	*	-	
_			Cailling		Date	05/20/93	

Total Drill Time = Average Penetration Rate =

12.08 Hours 12.42 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

1.51" N X 2.27" E 38.97 26.21 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 108 Area "A"

	CUT-OF	FF WALL EXCAVA	VIION						CUT-OFF \	WALL CONS	STRUCTION			
	Equipment		Drill Footage		Pure Drill Time		Penetration Pa	te te			Non-Spec.	Spec.	Theoretical	
Drilling	Ë	Fxcavation	Drill	Redrill	Drill	Redrill	i i	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
ote C	?≉	Method	<u></u>	Ę	HRS	(HRS)	(FT / HR)	(FT / HR)	Date	(CU.YD.)	(CU.YD.)	(CU.YD.)	(CU:VD:)	
11/11/00	1	DHD130A	37		1.75		21.14		11/11/92		10		8.6	15.7%
44/20/02	+	DHD120A	2	37	275	2.08	86	17.79	11/21/92		4		14.9	-6.3%
20/00/07	- 0	A01010	5	8	12.75	78	9	808				425	35.5	

Total Drill Time = Average Penetration Rate =

17.25 Hours 8.81 Feet / Hour

Total Redrill Time = Average Penetration Rate =

10.00 Hours 10.10 Feet / Hour

Verticality Information

1.3" N X .65" E 26.21

26.69 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 109 Area "A"

14.2% Overbreak 35.0 Theoretical Volume (CU.YD.) \$ Spec. Concrete (CU.YD.) Non-Spec. Concrete (CU.YD.) CUT-OFF WALL CONSTRUCTION Grout (CU.YD.) 05/15/93 Concrete Date (FT/HR) Redrill 12.95 (FT/HB) Redrill (HRS) Oure Orill Time Orill (HRS) 11.58 Redrill (FT) Drill Footage Drill (FT) 8 CUT-OFF WALL EXCAVATI Excavation **DHD130A** Equipment Rig 05/14/93 Drilling Date

Total Drill Time = Average Penetration Rate =

11.58 Hours 12.95 Feet / Hour

None

Totaf Redrill Time = Average Penetration Rate =

Verticality Information

1.28" N X .5" W 26.69 16.68 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 110 Area "A"

F WALL EXCAVATION	CAVATION Drill Footage Pure Drill Drill Footage Fedril Drill (FT) (FT) (HBS)		Non-Spec. Spec. Theoretical	Drill Redrill	21.56 04/02/93
CAVATION	CUT-OFF WALL EXCAVATION Equipment Percentation Rate Percentation Rate CUT Equipment Equipment Percentation Rate Accavation Drill Redrill Drill Redrill Drill Redrill CA CFT / HR) CFT /	- WALL CONS			
CAVATION Drill Footage Pure Drill Time Peretration Rate Drill Frontage Pure Drill (FT) (FT) (HRS) (FT/HR) (FT) (FT) (HRS) (FT/HR) (FT) (FT) (FT/HR) (FT/HR)	CUT-OFF WALL EXCAVATION Equipment Drill Footage Pure Drill Time Perintation Rate Fig Excavation Drill Footage Feddrill Drill Drill Drill Drill	CUT-OF		Concrete	04/02/9
Drill Footage	CUT-OFF WALL EXCAVATION Equipment Drill Footage Pure Drill Time Fig Excavation Drill Footage # Method (FT) (FT) (HRS) # Action (FT) (FT) (HRS) 152 XL-24 7.05		lΙ	Redrill (FT / HR)	
Drill Footage	CUT-OFF WALL EXCAVATION Equipment Drill Footage Pure Drill Time Rig Excavation Drill Drill # Method (FT) (FT) (HRS) 2 XL-24 152 7.05		Penetration Ra	Drill (FT / HB)	21.56
CAVATION Drill Footage Pure Drill Drill Footage Fedril Drill (FT) (FT) (HBS)	CUT-OFF WALL EXCAVATION Equipment Drill Footage Pure Drill Found Rig Excavation Drill Footage Fedrill Drill Drill Drill Footage # Method (FT) (FT) (HRS) 2 XL-24 152			Redrill	
CAVATION Drill Footage Drill (F1) 152	CUT – OFF WALL EXCAVATION Equipment Drill Footage Rig Excavation Drill		Pure Drill Time	Drill	3
CAVATION Drill Fool	CUT - OFF WALL EXCAVATION			Redrill	
Excavation Method XL-24	CUT-OFFV Equipment Rig F	VIION	Drill Footage		152
manufact II	S B	FF WALL EXCAVA		Excavation	XL-24

Total Drill Time == Average Penetration Rate =

7.05 Hours 21.56 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

3.44" S X 8.13" E 16.68 34.66 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 111 Area "A"

	CUT-0	JEF WALL EXCAVA	TION						CUT-OFF V	VALL CONS	TRUCTION			
	-automent	=	Drill Footage		Pure Drill Time		Penetration Ra	te			Non-Spec.	Spec.	Theoretical	
Drillina	Big	Excavation	Dill	Redrill	Drill	Redrill	Drill	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
Date	*	Method	Œ	Œ	(HRS)	(HRS)	(FT/HR)	(FT/HB)	Date	(CU.VD.)	(CU.YD.)	(CU.YD.)	(CO,YD.)	
06/01/93	1	DHD130A	. 150		9.17		16.36		06/01/93			41	35.0	17.0%
4	1													

Total Drill Time = Average Penetration Rate =

9.17 Hours 16.36 Feet / Hour

Total Redrill Time = . Average Penetration Rate =

None

Verticality Information

3" N X 5" E 34.66 18.48 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Area "A"

	Spec		CONGREGO CONCINE (CU.YD.)		46 35.5 23.6%		
CUT-OFF WALL CONSTRUCTION	N		Ground	+	04/40/03	25/12/15	
		Penetration Rate		I (FT/HR)		14.18	
		Pure Drill Time	Dilli	(HRS)		10.72	
	AICA	Drill Ecobode	Drill Redrill	(FT) (FT)		152	
	IT-OFF WALL EXCAV		upment Everation	* Method		2 DHD130A	
	C				Date	04/09/93	

10.72 Hours 14.18 Feet / Hour

Total Drill Time = Average Penetration Rate ==

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

1.91"SX1.91"E

18.48 31.01 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 113

Area "A"

Total Drill Time = Average Penetration Rate =

9.42 Hours 15.92 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

1.28" N X 2.31" E At Full Depth = S-ARC North = S-ARC South =

31.01 24.76

Quality Coring: None.

Secondary Pile # 114 Area "A"

		Jacobson	VOIDIGEN			39.0%	
	Theoretical	_	Allino	(CU.YD.)		35.3	
	Spec.		Concrete	(CU.YD.)		49	
TRUCTION	Non-Soec.		Concrete	(CU:VD:)			
WALL CONS			Grout	(CU.XD.)			
CUT-OFF			Concrete	Date		03/20/93	
	oto	ALCO	Redrill	(FT / HR)			
	Donotration Re	diction in		(FT / HR)		13.83	
			Redrill	(HRS)			-
	Ľ	Ture Dull I III	Diil	(HRS)		10.92	-
			Redrill	Œ			
MOIT			Dig	Ę		151	
FE WALL EXCAVA	TI WALL LACAV	-	Evenuation	Mothod	Medica	DHD130A	
TIV	1	Fourinmen	5.0	2 4	*	1	
			Drilling	2	Date	03/19/93	

Average Penetration Rate = Total Drill Time =

10.92 Hours 13.83 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

0" N/S X 4.5" E 24.76 28.31 At Full Depth = Verticality Information

S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 115 Area "A" CUT-OFF WALL CONSTRUCTION 03/29/93 Concrete Redrill (FT / HR) 21.34 (FT/HB) Redrill (HRS) Pure Drill Time Drill (HRS) 7.17 Redrill (F) Drill Footage Drill (FT) 53 CUT-OFF WALL EXCAVATION Excavation Method XL-24 quipment Rig 03/27/93 Drilling Date

19.0%

35.7

42.5

Overbreak

Theoretical-Volume (CU,YD.)

Spec. Concrete (CU.YD.)

Non-Spec. Concrete (CU.YD.)

Grout (CU.YD.)

Total Drill Time = Average Penetration Rate =

7.17 Hours 21.34 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

1.27" N X 1.91" E 28.31 At Full Depth =

27.34 S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 116 Area "A"

		Overbreak		41.8%
	Theoretical	(CU.YD.)		36.0
	Spec.	Concrete (CU.YD.)		51
TRUCTION	Non-Spec.	Concrete		
WALL CONS		Grout	20.00	
CUT-OFF		Concrete	Caro	02/26/93
	1 1	Redrill (FT / HB)	(11)	
	Penetration Rate		111 / 11U	15.54
		Redrill	(SLL)	
	Pure Drill Time		2	9.91
		Redrill		
ATION	Drill Footage	<u>E</u>	FI	154
FF WALL EXCAVA		Ξ.	Method	DHD130A
CIIT-0	Follipmen	Rig	#	-
		Drilling	Date	02/26/93

Total Drill Time.= Average Penetration Rate =

9.91 Hours 15.54 Feet / Hour

Total Redrill Time = Average Penetration Rate =

Verticality Information

2.15" N X 2.77" W 27.34 14.93

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 117

Area "A"

10.67 Hours 14.06 Feet / Hour

Total Drill Time = Average Penetration Rate =

None

Total Redrill Time = Average Penetration Rate =

4.11°S X 2.83°E 14.93 32.82 At Full Depth = S-ARC North = S-ARC South = Verticality Information

Quality Coring: None.

Secondary Pile # 118 Area "A"

		T_OFF WALL FYCAVA	NOIL						CUT-OFF V	VALL CONS	TRUCTION			
		*	Drill Footage		Pure Drill Time		Penetration Rate	ite			Non-Spec.	Spec.	Theoretical	
Drilling	Rig	Ţ,		Redrill	Orill	Redrill	Drill (FT / HB)	Redrill (FT / HR)	Concrete	Grout (CU YD.)	Concrete (CU.YD.)	Concrete (CU.YD.)	Volume (CU.YD.)	Overbreak
Date	*	Memod		l'L'I	2	2								
02/13/93	2	DHD130A	151		16.37		9.22		02/13/93			₹.	35.3	53.1%

16.37 Hours 9.22 Feet / Hour

Total Drill Time = Average Penetration Rate =

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

.63" N X 4.69" E 32.82 18.11

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: NQ 0' TO 93'.

Comments:

Primary Pile # 119

Area "A"

		JEE WALL EXCAVA	VIION						CUT-OFF V	CUT-OFF WALL CONSI	TRUCTION			
	Formone	1	Drill Footage		Pure Drill Time		Penetration Rate	te			Non-Spec.	Spec.	Theoretical	
Drilling	Rig	Excavation	Drill	Redrill	Orill	Redrill		Redrill	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
Date	*	Method		(FI	(HRS)	(HRS)	FI / HH)	(FI / HB)	Dale	101.00	77.77	77	NAT I AN	
05/08/93	2	DHD130A	151		13.33		11.33		05/08/93			42	35.3	19.1%

13.33 Hours 11.33 Feet / Hour

Total Drill Time = Average Penetration Rate =

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

4" S X 1.5" W 18.11 38.75

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 120 Area "A"

		Overbreak		7.1%		44.6%
	Theoretical	Volume	(CU:VD.)	9.3		35.3
	Spec.	Concrete	(CU.YD.)		NO	51
TRUCTION	Non-Spec.	Concrete	(CU.YD.)	10	INFORMAT	
T-OFF WALL CONSTRUC		Grout	(CU.YD.)		2	
CUT-OFF V		Concrete	Date	02/23/33		03/17/93
	_	Redrill	(FT / HR)		10.00	42.62
	² enetration Rate	Dill	(FT / HR)	34.48	7.48	10.69
		Redrill	(HRS)		4.00	1.83
	Jure Drill Time	Drill	(HRS)	1.16	5.08	6.83
		Redrill	Œ		9	78
VTION	Drill Footage	Drill	Œ	40	78	151
F WALL EXCAVA		Excavation	Method	DHD130A	DHD130A	DHD130A
CUT-O	Equipment	Ë	*	-	7	-
		Drilling	Date	02/23/93	03/03/93	03/17/93

13.07 Hours 11.55 Feet / Hour

Total Drill Time = Average Penetration Rate =

Total Redrill Time = Average Penetration Rate =

5.83 Hours 20.24 Feet / Hour

5.87" N X O' E/W 38.75 16.66

Verticality Information
At Full Depth =
S-ARC North =
S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 121 Area "A"

		Overbreak		15.6%
	Theoretical	Volume	(CU.YD.)	35.0
	Spec.	Concrete	(CU.YD.)	40.5
TRUCTION	Non-Spec.	Concrete	(CU.YD.)	
WALL CONS		Grouf	(CU.YD.)	
CUT-OFF WALL CONSTRUCTION		Concrete	Date	06/08/93
	te	Redrill	(FI/HR)	
	Penetration Rate	Drill	(FT / HP)	12.42
		Redrill	(HRS)	
	Pure Drill Time	Drill	· (HRS)	12.08
		Redrill	ED	
4TION	Drill Footage	Drill	Œ	150
F WALL EXCAV		Excavation	Method	DHD130A
CUT-OF	Equipment	Rid	*	2
		Drilling	Date	06/07/93

Total Drill Time = Average Penetration Rate =

12.08 Hours 12.42 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

0"N/S X 2.75" E 16.66 33.51 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 122 Area "A"

П		¥		43.2%
		Overbreak		
	Theoretical	Volume	(CU.YD.)	35.3
	Spec.	_		50.5
STRUCTION	Non-Spec.	Concrete	(CU.VD.)	
WALL CONSTRUC			(CU.YD.)	
CUT-OFF		Concrete	Date	03/25/93
	te	Redrill	(FT / HR)	
	Penetration Rate	Drill	(FT / HR)	6.83
		Redrill	(HRS)	
	Pure Drill Time	Drill	HR3	22.10
		Redrill	Œ	
ATION	Drill Footage	Drill	E	151
FF WALL EXCAVA	ıt	Excavation	Method	DHD130A
CUT-C	Equipmen	Rig	°*	-
		Drilling	Date	03/24/93

Total Drill Time = Average Penetration Rate =

22.10 Hours 6.83 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

5.41" N X 5.41" E 33.51 15.31 Verticality Information
At Full Depth =
S-ARC North =
S-ARC South =

Quality Coring: None.

Connection made with pile 144 Comments:

Primary Pile # 123 Area "A"

Total Drill Time = Average Penetration Rate =

11.08 Hours 13.54 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

1"SX2"E 15.31 26.41 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Area "A"

Rate Redrill (FT / HR) 00 27.00	
CUT - OFF WALL CONSTRUCTION Section Concrete Grout Concrete CU.YD.) CU.YD.) CU.YD.) CU.YD.) CU.YD.) CU.YD.) PILE CO.YD.) PILE CO.YD.) CO.YD.)	
Redrill (FT / HR)	
Redrill (FT / HR)	
Redrill (FT / HR)	
Rec (FT /	
Drill FT / HR) 20:	
Redrill (HRS) (
Pure Drill Time Drill (HRS) 1.35	
Redrill (FT)	
ATION Drill Footage Drill (FT) 27	2
It Excavation Method DHD130A	2010
CUT-O Equipmen Pate #	1/10/921

Total Drill Time = Average Penetration Rate =

12.85 Hours 11.75 Feet / Hour

Total Redrill Time = Average Penetration Rate =

1.00 Hours 27.00 Feet / Hour

Verticality Information

1"S X 1.5"W

At Full Depth =

26.41 S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 125

Area "A"

Theoretical Volume (CU.YD.) 39.5 Spec. Concrete (CU.YD.) 7-OFF WALL CONSTRUCTION
norete Grout Concrete
Sete (CU.YD.) (CU.YD.) Grout (CU.YD.) 06/12/93 Concrete Date Redrill (FT / HR) Penetration Rate Drill (FT / HR) 14.16 Redrill (HRS) Pure Drill Time Drill (HRS) 10.59 Redrill (FI) 8 Drill Footage Drill (FT) CUT-OFF WALL EXCAVATION Excavation **DHD130A** quipment Rig 0 06/12/93 Drilling Date

12.8%

35.0

Overbreak

Total Drill Time = Average Penetration Rate =

10.59 Hours 14.16 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

1" N X 1" W 29.53 27.27 At Full Depth =

S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 126 Area "A"

		ALL TAYAN TO AVA	TION						CUT-OFF V	WALL CONS	TRUCTION			
		JEF WALL EXCAVE	NO.								Mon-Spec	Spec	Theoretical	
	2000	i	Drill Footsca		Pure Drill Ime		Penetration Ha	en en			-	1	1-11	
				I	-			Hirton Co.	Concession	4	Concrete	Concrete	Volume	
D. Illino	200	Eventation	Drill	Redrill		Hedri	5	Hedrill	COLCIER	1005	201213	200000	100	
Silling	2	TYPERMAN		Ę	10010	(700)		EH/ 14	Date	(20,75)	(CC: VD:)	(CO.VD.)	(CO. VD.)	
Date	*	Method	ī		245	2								
													1 30	20.00
	,	20070110	453		02.0		15.95		06/22/33			4	3	
05/24/93		AN I CHO	3		3									

Total Drill Time =

9.59 Hours 15.95 Feet / Hour

Average Penetration Rate ==

Total Redrill Time = Average Penetration Rate =

Verticality Information

1.5" N X 3.6" W At Full Depth =

27.27 35.30

S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 127 Area "A"

14.2% Overbreak Theoretical Volume (CU.YD.) 各 Spec. Concrete (CU.YD.) CUT-OFF WALL CONSTRUCTION
Concrete Grout Concrete
Date (CU.YD.) (CU.YD.) Grout (CU.YD.) 06/17/93 Concrete Date Redrill (FT / HR) Penetration Rate Drill (FT / HR) 14.88 Redrill (HRS) Oure Drill Time Drill (HRS) 10.08 Redrill (FI) Drill Footage Drill (FT) දි CUT-OFF WALL EXCAVATION Excavation DHD130A 8 .ge ≉ 06/16/93 Drilling Date

Average Penetration Rate = Total Drill Time =

10.08 Hours 14.88 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

8.56" N X .5" W 35.30 At Full Depth = S-ARC North = S-ARC South =

17.99

Quality Coring: None.

Secondary Pile # 128 Area "A"

		WACAT LANGE	MATION						CUT-OFF V	VALL CONS	TRUCTION			
		THE WALL EXCAN	A DOLA								A	Cooc	Theoretical	
	and the second	*	Drill Footage		Pure Drill Time		Penetration Rate	te			Non-spec.	300	Mehima	James de la
Drilling	Rich	Excavation	Drill	Redrill			Drill	Redrill	Concrete	Grout	Concrete	Concrete	(CL VD)	OVERDIGHE
Date	*	Method	Œ	<u>(E</u>)	(HRS)	(HRS)	(FT / HR)	(FI / HH)	Date	CO.TD.)	(20.10.)	20.00		
20/22/03	-	DHD1304	88		1.67		22.75		02/23/93		12		8.9	35.2%
0450	-				C	•	1	24.55	04/17/93			47	35.5	32.4%
04/16/93	2	DHD130A	25	3	8	2								

Total Drill Time =

11.50 Hours 13.22 Feet / Hour

Average Penetration Rate =

1.10 Hours 34.55 Feet / Hour

Verticality Information
At Full Depth =

Total Redrill Time = Average Penetration Rate =

3.8" N X 6.36"W

17.99 S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 129 Area "A"

T	_	_				
		American	CVerbigan		15.6%	
	Theoretical	1/-1	(CU.YD.)		35.0	
	200	3	Concrete		40.5	
TRUCTION	Non-Spec	2000	Concrete			
WALL CONSTRUCTION			Grout	200		
CUT-OFF			Concrete	Care	06/22/93	
		ate	Redrill	(LI / LIB)		
		Penetration Hate	Dill C	(FI / HR)	13.04	
			Redrill	(HRS)		
		Pure Drill Time	Ori	(HRS)	11.50	
			Redrill	Œ		-
MOIT	1011	Drill Footage	Drill	Œ	150	
EE WALL EYCAVA	TH WALL LADAY		Excavation	Method	DHD130A	
1		Commit	Rig	*	2	
Ľ	_		Drilling	Date	06/21/93	

Total Drill Time = Average Penetration Rate =

11.50 Hours 13.04 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

2.52" N X 2.77" W 24.52 15.83 At Full Depth =

S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 130

Area "A"

		Overbreak			28.2%		
		_	(CU.YD.)		35.5		
	Spec.	Concrete	(CU.YD.)		45.5		
TRUCTION	Non-Spec.	Concente		1000			
WALL CONSTRUC		-		20.10.			
CUT-OFF			Concrete	Dale	00/11/03	200	
	2	l.	Hedri	(FI / HH)			
	Denotation Date	- Calegran		(FI / HH)	2,07	3.38	
			Redrill	(HRS)			
	Ľ	Pure Unil Ime	Drill	(HRS)		11.24	
			Redrill	(FI)			
14012	NO.	Drill Footage	Drill	Œ		152	
	FF WALL EXCAVE		Excavation	Method		DHD130A	
	CUT-O	Conjournant	Rig	?*		2	
•			Drilling	o de C	Date	02/10/93	

11.24 Hours 13.52 Feet / Hour

Total Drill Time = Average Penetration Rate =

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

3.65" S X .79" E 15.83 28.92

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 131 Area "A"

ALL EXCAVATION Pure Drill Time Penetration Rate Penetration Rate Concrete Grout Non-Spec. Spec. Theoretical volume Overbreak Scavation Drill Footage Redrill Drill Fortage FIT / HR) (FT / HR) (FT / HR) (FT / HR) (FT / HR) (CU,YD.) (CU,YD.)	me Penetration Rate Course Annual Mon-Spec. Theoretical Non-Spec. Theoretical Concrete Volume
---	---

Total Drill Time = Average Penetration Rate =

11.50 Hours 13.04 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

2.01°S X 2.52°E 28.92 26.02 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 132 Area "A"

	CITTO	FE WALL EXCAVA	MOIT						CUT-OFF V	VALL CONS	TRUCTION			
		1	I Drill Ecotogo		Prine Drill Time		Penetration Rate	te			Non-Spec.	Spec.	Theoretical	
-	Ednibiliea			Dadrill		Dodrill] <u> </u>	Radrill	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
Drilling	H.G	Excavation	5 ((000	(dr.) Fi	AH / HB	Pate		(CL XI)	(CU.YD.)	(CU:YD:)	
Date	*	Method	=		í2 L	SUL	(41)		200					
03/14/93	-	DHD130A	153		14.35		10.66		03/15/93			40	35.7	12.0%

14.35 Hours 10.66 Feet / Hour

Total Drill Time = Average Penetration Rate =

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

At Full Depth = S-ARC North = S-ARC South =

2.5" \$ X 3.15" E 26.02 30.08

Quality Coring: None.

Comments:

Primary Pile # 133 Area "A"

		A THE PERSON NAMED IN	Overbreak		9.2%
	Theoretical	W-kinne	volume	(CU.YD.)	35.7
	Spec		Concrete	(CU.YD.)	8
TRUCTION	Non-Spec		Concrete	(CU.YD.)	
WALL CONSTE			Grout	(CU:VD)	
CUT-OFF			Concrete	Date	86/62/90
	9,0	١	Redrill	(FT/HR)	
	Donotmtion Date	o louidital re		(FT/HR)	20.18
			Redrill	(HRS)	
	1	Fure Drill I me	Di.	(HRS)	7.58
			Redrill	£	
NOIT		Unii Footage		Œ	153
EE WALL EXCAVA		-	Excavation	Method	DHD130A
		Equipmen	Ria	? ≉	1
			Drilling	Date.	05/28/93

Total Drill Time == Average Penetration Rate ==

7.58 Hours 20.18 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

0" N/S X 1.5" E 30.08 26.98 At Full Depth = S-ARC North = S-ARC South = Verticality Information

Quality Coring: None.

Secondary Pile # 134 Area "A"

	JO TI	FYCAVA	VLION						CUT-OFF V	VALL CONS	STRUCTION			
	Fortingent		Drill Footage		Pure Drill Time		Penetration Rate	te			Non-Spec.	Spec.	Theoretical	
Drilling	Rid	Excavation	Duill	Redrill	Drill	Redrill	Drill	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Cverbreak
Date	*	Method	Œ	E	(HRS)	(HRS)	(FT/HR)	(FT/HR)	Date	(CO.YD.)	(CU, YU.)	CO. 10.1	20.10.7	
11/21/92	-	DHD130A	31		1.83		16.94			!	1		2. 4	
11/23/92	-	DHD130A	8		1.50		41.33		11/23/94	5			C.4.0	90.00
10/03/00	-	DHD130A	151	8	7.33	3.25	12.14	19.08				38.5	55.5	

10.66 Hours 17.07 Feet / Hour

Total Drill Time = Average Penetration Rate =

3.25 Hours 19.08 Feet / Hour

Total Redrill Time = Average Penetration Rate =

.25" N X .63" W 26.98 At Full Depth = S-ARC North = S-ARC South =

Verticality Information

33.87

Quality Coring: None.

Comments:

Primary Pile # 135 Area "A"

heoretical Volume (CU,YD.) 8 Spec. Concrete (CU.YD.) Non-Spec. Concrete (CU.YD.) CUT-OFF WALL CONSTRUCTION Grout (CU.YD.) 05/13/93 Concrete Date Redrill (FT / HR) 12.17 (FT / HR) Redrill (HRS) 12.33 Redrill Drill Footage Drill (FT) ŝ CUT-OFF WALL EXCAVATION Excavation Method DHD130A Equipment Rig a 05/13/93 Drilling Date

14.2%

35.0

Overbreak

12.33 Hours 12.17 Feet / Hour

Total Drill Time = Average Penetration Rate =

None Total Redrill Time = Average Penetration Rate =

Verticality Information

6" N X 2.5" E 33.87 At Full Depth =

S-ARC North =

Deficient Joint Width at Full Depth, Corrected with Comforming Pile. S-ARC South ==

Quality Coring: None.

Secondary Pile # 136 Area "A"

	CITTO	SEE WALL EXCAVA	NOIT						CUT-OFF V	WALL CONSTRU	TRUCTION			
		1	Drill Exchange		Dura Drill Time		Penetration Bate	9			Non-Spec.	Spec.	Theoretical	
		_	Cilli i Colaye		٠l		-	J	1				Wahima	Sant Aurel
Drilling	, id	Excavation	Drill	Redrill	E C	Redrill	-	Redrill	Concrete	Grout	Concrete	Concrete	Nomine	CVeripressix
2	P.	100	Ę	Ę	ADD	HPC	(F) HB	(FT / HR)	Date	(CC)	(CC:XD)	(CO:YD:)	(CU.YD.)	
Date	#	Memod	1131		2	2								
01/25/93	-	DHD130A	151		16.07		9.40		01/28/93			£	35.3	21.9%
22 /2-12														

Total Drill Time =

16.07 Hours 9.40 Feet / Hour

Average Penetration Rate ==

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

At Full Depth =

2.2"S X 7.65" W
Deficient Joint Width at Full Depth, Corrected with Comforming Pile. 32.35 S-ARC North = S-ARC South =

Quality Coring: NQ 0' TO 152'. (2/6/93)

Comments: Used pump truck for concrete placement

Primary Pile # 137 Area "A"

	0-110	FE WALL EXCAVA	VILION						ICUT-OFF WALL CONSTRUCTION	VALL CONS	TRUCTION			
			Day F		1-		Denotration Bate				Non-Spec.	Spec.	Theoretical	
	Edupment		Drill Footage		Fulle Dilli I III e		relicuation na	-1					1/-6-	Acceptant of
Drilling	Ria	Excavation	Drill	Redrill	ii.	Redrill		Redrie	Concrete	Grout	Concrete	Concrete	Volume	CVerbreak
D ate	? ≉	Method	٦	Œ	(HRS)	(HRS)	(FT / HR)	(FT / HR)	Date	(CU.YD.)	(CU.VD.)	(CU.XD.)	(CU.YD.)	
Caro	-	3												
06/15/93	2	DHD130A	150		12.33		12.17		06/16/93			8	35.0	14.2%

12.33 Hours 12.17 Feet / Hour

Total Drill Time = Average Penetration Rate =

None

Total Redrill Time = Average Penetration Rate =

2.89" N X 2" W 32.35 22.27 Verticality Information

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 138

Area "A"

	CIT-OF	OFF WALL EXCAVA	TION						CUT-OFF V	VALL CONS	TRUCTION			
	-dimen	+	Drill Footage		Pure Drill Time		Penetration Rate	te			Non-Spec.	Spec.	Theoretical	
Drilling	Rig	Ŋ,	E	Redrill	Drill PRS	Redrill	Drill (FT / HR)	Redrill (FT / HR)	Concrete	Grout (CU.YD.)	Concrete (CU.YD.)	Concrete (CU.YD.)	(CU.YD.)	Overbreak
Date	#	Merioc	1	7	2	2								
11/13/92	-	DHD130A	. 151		12.28		12.30		11/14/92			4	35.3	16.3%

12.28 Hours 12.30 Feet / Hour

Total Drill Time = Average Penetration Rate =

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

0" N/S X 0" E/W 22.27 32.66

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments: Old Soletanche panel

Primary Pile # 139 Area "A"

		FF WALL EXCAVA	VIION						CUT-OFF W	VALL CONS	TRUCTION			
	-dinmon	+	Drill Footage		Pure Drill Time		Penetration Rate	ite			Non-Spec.	Spec.	Theoretical	
Drilling	Rig	,	Orill	Redrill	Drill Drill	Redrill		Redrill	Concrete	Grout	Concrete	Concrete	Volume (CU,YD.)	Overbreak
Date	*	Method	(FI)		2	(SUL)	ווייייייייייייייייייייייייייייייייייייי	MI / III	Calo	122.12				
06/02/93	N	DHD130A	. 150		11.09		13.53		06/03/33			14	35.0	17.0%

Total Drill Time = Average Penetration Rate =

11.09 Hours 13.53 Feet / Hour

None

Total Redrill Time = Average Penetration Rate ==

Verticality Information

4.53" N X .63" W 32.66 16.71

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 140 Area "A"

Total Drill Time =

17.91 Hours 8.54 Feet / Hour

Average Penetration Rate =

Total Redrill Time = Average Penetration Rate =

1.16 Hours 27.59 Feet / Hour

Verticality Information

1.3"S X 3.6" W 16.71

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: Joint 140/14 1; 6" core; 30.3"; 9/22/93

Comments:

Primary Pile # 141 Area "A"

	0.11	FE WALL EXCAVA	NOITY						CUT-OFFV	VALL CONS	TRUCTION			
	- Construction	+	Drill Footage		Pure Drill Time		Penetration Rat	te			Non-Spec.	Spec.	Theoretical	
Drilling	Rig	a,	E (Redrill	Orill	Redrill	Drill /ET / HP)	Redrill (FT / HR)	Concrete	Grout (CU,YD.)	Concrete (CU.YD.)	Concrete (CU,YD.)	(CU.YD.)	Overbreak
Date	#	Memod			200									
04/05/93	-	DHD130A	153		8.71		17.57		04/06/93			41.5	35.7	16.2%

Total Drill Time == Average Penetration Rate ==

8.71 Hours 17.57 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

At Full Depth = S-ARC North = S-ARC South = Verticality Information

2.84" S X 0" E/W 24.13 24.41

Quality Coring: None.

Secondary Pile # 142

Area "A"

		- Transfer	CVerbreak		39.9%	
	Theoretical	1-1-1	(CU.YD.)		35.7	
	Spec		Concrete (CU.YD.)		8	
L CONSTRUCTION	Non-Spec	100	Concrete (CU.YD.)			
WALL CONS			Group Critical Critic			
CUT-OFF		-	Concrete		03/19/93	
	,	- [Redrill (FT / HB)			
	Danish D	Penetration hate			10.53	
			Redrill	2		
	12	Fure Unit I ime		2	14.53	
			Redrill			
MOIT		Drill Footage		(FI)	153	
TEE WALL EXCAVE	T WALL LANDY	=	ă	Method	DHD130A	
	3	Fortimen	Rig	#	-	
			Drilling	Date	03/18/93	

14.53 Hours 10.53 Feet / Hour

Total Drill Time = Average Penetration Rate =

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

4.45°S X 0°E/W 24.41 38.51

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 143 Area "A"

	1	APENANTI EYCAVA	ATION						CUT-OFFV	SUT-OFF WALL CONSTRUCTION	TRUCTION			
	2	THE WALL LADY									Mon Coo	Chor	Theoretical	
	Fourier	14	I Drill Footage		Pure Drill Time		Penetration Hate	16			MOI Spec.	3		
Drilling	Rig	Excavation	Drill	Redrill	Drill	Redrill		Redrill	Concrete	Grout	Concrete	Concrete	(CU,YD.)	Overbreak
Date	*	Method	(FI)	(I)	(SHE)	CHI	מנו / ונונו	7011 / 1107	raio	177				
05/24/93	2	DHD130A	150		10.09		14.87		05/25/93			40	35.0	14.2%

Total Drill Time = Average Penetration Rate =

10.09 Hours 14.87 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

5.13" N.X.5" E 38.51 20.62 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 144

Area "A"

5.50 Hours 27.45 Feet / Hour

Total Drill Time = Average Penetration Rate =

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

1.25" N X 2.5" E 20.62 25.65

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments: Connected with pile 122

Primary Pile # 145 Area "A"

Total Drill Time = Average Penetration Rate ==

10.92 Hours 13.74 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

.5" N X 1.77" E 25.65 26.00 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 146 Area "A"

	O-THO	IT-OFF WALL EXCAVA	ATION						CUT-OFF V	WALL CONS	TRUCTION			
	Fortinment		Drill Footage		Pure Drill Time		Penetration Rate	ite			Non-Spec.	Spec.	Theoretical	
Drilling	Rig	Excavation	Orill	Redrill	Drill	Redrill	Drill	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
Date	*	Method	Œ	(F)	(HRS)	(HRS)	(FI / HR)	(FI / HH)	Date	(CO.VD.)	CO.TO.)	CO. LO.	(20.10.)	
04/17/93	-	DHD130A	153		9.82		15.58		04/19/93			44	35.7	23.2%

9.82 Hours 15.58 Feet / Hour

Total Drill Time = Average Penetration Rate =

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

At Full Depth = S-ARC North = S-ARC South =

0" N/S X .70" E 26.00 30.62

Quality Coring: None.

Comments:

Primary Pile # 147 Area "A"

	CIT-C	PE WALL EXCAVA	TION						CUT-OFF	WALL CONS	TRUCTION			
	Fornipmen	1	Drill Footage		Pure Drill Time		Penetration Ra	te			Non-Spec.	Spec.	Theoretical	
Drilling	Rig	<u>ش</u>	Drill	Redrill	Drill	Redrill	Dia	Redrill	Concrete	Grout	Concrete	Concrete	Votume	Overbreak
Date	*	Method	(ED)	(FI)	(HHS)	(HHS)	E / HKB	(FI / HH)	Date	100.100	10.10.1	100.00	- AA. 10.7	
05/26/93		XL-24	150		6.75		22.22		05/26/93			40	35.0	14.2%
												•		

Total Drill Time = Average Penetration Rate =

6.75 Hours 22.22 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

3" N X 1.5" W 30.62 19.72 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 148 Area "A"

WALL CONSTRUCTION	Non-Spec. Spec. Theoretical	e Grout Concrete Concrete Volume Overbreak	(cu.yp.) (cu.yp.) (cu.yp.)	04/08/93 46 35.5 29.6%
CUT-OFF		Redrill Concrete	FT / HR) Date	04/0
	enetration Rate		(FT/HR) (FT/	14.96
	Per	Redrill	_	
	Pure Drill Time	Dill	(HRS)	10.16
	Ð	Redrill	Œ	2
ATION	Drill Footag	<u>F</u> O	(F)	152
FF WALL EXCAV.	11	Excavation	Method	DHD130A
CUT-C	Equipment	Rig	*	1
		Drilling	Date	04/08/93

Total Drill Time = Average Penetration Rate =

10.16 Hours 14.96 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

1.24" S X 1.86" E 19.72 34.32 At Full Depth = S-ARC North = S-ARC South = Verticality Information

Quality Coring: None.

Comments:

Primary Pile # 149 Area "A"

	Non-Spec. Spec. Theoretical	Concrete	(CU.YD.) (CU.YD.)	3.08 11.62 05/07/93 40.5 35.5 14.1%
CUT-O			(FT / HR)	
	Time Penetratic	Redrill		13.08
	ge Pure Drill 7	Redrill Drill	(FT) HRS)	152
AVATION	Drill Footag	Drill	(F)	#
-OFF WALL EXCA	pment	Excavation	Method	2 DHD130A
-TUO	Equipm	Drilling	Date #	05/03/93

Total Drill Time = Average Penetration Rate =

13.08 Hours 11.62 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

5.94" N X 4.82" W 34.32

At Full Depth = S-ARC North = S-ARC South =

No Overlap at Full Depth, Corrected with Conforming Pile.

Quality Coring: None.

Secondary Pile # 150 Area "A"

	1	WACALL FOR	MOITA						CUT-OFF WALL CONSTRUCTION	VALL CONS	TRUCTION			
		JEE WALL EACH	2015								Alex Once	Spec	Theoretica	
	- Consistence	+	Drill Footage		Pure Drill Time		Penetration Rate	9			NGI-Spec	3		A A A
	3	-						2	4	-	Constant	0		Y THE COURT
Drilling	Ric	Excavation	E	Redrill	Die C	Redrill	5	Hedri	Concrete	arout Grind				
	2	Mothod	Ę	٥	FRS	ERS)	(FT/HR)	(FT / HR)	Date	CO.YU.)	(.07.00)	(20.10.)	20.10.	
Date	#	Menion												
03/31/93	-	DHD130A	152		11.20		13.57		04/02/93			43	35.5	21.1%

Total Drill Time = Average Penetration Rate =

11.20 Hours 13.57 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

At Full Depth = S-ARC North = S-ARC South =

7.94" S X 6.04" E No Overlap at Full Depth, Corrected with Conforming Pile. 33.74

Quality Coring: None.

Comments:

Primary Pile # 151

Area "A"

		January C	CVGIDIGAR		14.2%	
	Theoretical	Mark and	(CU,YD.)		21.0	
	Spec	1	Concrete	13.13.1	24	
STRUCTION	Non-Snec	100	Concrete	20.00		
T-OFF WALL CONSTRUCTION			Ground	77.10.1		
ICUT-OFF			Concrete	alpo	06/01/93	
		- 1	Redrill	(LI / LIM)		
		Penetration Hate		(F1/HB)	15.65	
			Redrill	(HHS)	•	
		Pure Unil Ime	Drill	(HRS)	5.75	
			Redrill	(EI)		
MOITI		Drill Footage	Drill	E	06	
SEE WALLEYCAVA	JET WALL LAUNA	-	Excavation	Method	DHD130A	
	500	Eminor	Rig	*	2	
			Drilling	Date	06/01/93	

Total Drill Time = Average Penetration Rate =

5.75 Hours 15.65 Feet / Hour

None Total Redrill Time = Average Penetration Rate =

Verticality Information

1" N X 0" E/W 33.74 26.74 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 152 Area "A"

	1	ALL MAN I POUR	MOLE						CUT-OFF W	VALL CONS	TRUCTION			
		THE WALL DAUGH									1000	2000	Theoretical	
		,	Orill Footsce		Pure Drill Time		Penetration Rate	ıte			NOT LODGE	3	1/-1	A
			2600						-	1	Concrete	Concrete	ACT TO	
Cailling	Š	Evestation	Drill	Redrill		Hedri	=======================================	HOGUI	COLICIER	1005			5	
2	2		Ę	Ę	(HDC)	HPS	(F) HB	EH/HB	Date	CU.VD.)	CO.AD.)	(50.10.)	7.0	
Date	*	Method			2	2								
02/22/93	-	DHD130A	16		10.66		8.54		02/22/33			83	21.3	20.6%

10.66 Hours 8.54 Feet / Hour

Total Drill Time = Average Penetration Rate =

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

1.66" N X 5.63" W 26.74 22.30

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 153 Area "A"

		- Amethod	CVEIDIGAN				14.2%			
	Theoretical	100	AOMITTE		20.121		21.0	2		
	Spec		Concrete	(NIO	20.10.1		70	ţ		
TRUCTION	Mon-Snor	1000	Concrete		(.01.00)					
CUT-OFF WALL CONST			Grant		(CO.YD.)					
CUT-OFF			Concrete		Care		00,000	25/07/93		
		ion Hate	Dodeil		E/HK			_		
		Penetration H	77.0	5	(FI/HR)			10.69		
		60	7770	Hedi	E RS					
	Pure Drill Time			5	ERS)			8.45		
				Hedu	Œ	,				
MOIT	100	Drill Footsore	200		٤			8		
CEMAIL EYCAV	LL VALL EACAV			Excavation	Mothod	Menion		DHD130A		
	2	Equipment.		Big	7	*		0	3	
				Drilling	2	Care		05/10/02	200	

Total Drill Time = Average Penetration Rate =

8.42 Hours 10.69 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

1" S X 1.77" W 22.30 33.10 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 154 Area "A"

Drilling Date # Method (FT) (FT) (HRS) (HRS) (FT/HR) (FT/HR) </th <th></th> <th>cut-o</th> <th>FF WALL EXCAVA</th> <th>ATION</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th>CUT-OFF V</th> <th>WALL CONS</th> <th>TRUCTION</th> <th></th> <th></th> <th>·</th>		cut-o	FF WALL EXCAVA	ATION						CUT-OFF V	WALL CONS	TRUCTION			·
Rig Excavation Drill Redrill Drill Redrill Drill Redrill Concrete Ground Concrete # Method (FT) (FT) (FT/HR) (FT/HR) (FT/HR) (FT/HR) (CU/YD.) (CU/YD.) 33 1 DHD130A 91 9.10 10.00 03/16/93 C3/16/93		auiomen		Drill Footage		_		Penetration Ra	te			Non-Spec.	Spec.	Theoretical	
# Method (FT) (FT) (HRS) (HRS) (FT/HR) (FT/HR) Date (CU.YD.) (CU.YD.) (CU.YD.) (CU.YD.) (CU.YD.) (CU.YD.) (CU.YD.) (CU.YD.)	Drilling	Rid		Drill	Redrill	Drill	Redrill	Drill	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
793 1 DHD130A 91 9.10	Date	*	Method	Œ	Œ	(HRS)	(HRS)	(FT / HR)	(FT/HR)	Date	(CU.YD.)	(CU.YD.)	(CU.YU.)	(CU.YU.)	
	03/15/93	-	DHD130A	91		9.10		10.00		03/16/93			29.5	21.3	38.8%

Total Drill Time = Average Penetration Rate =

9.10 Hours 10.00 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

4" N X 4" W 33.10 21.87 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 155

Area "A"

8	CUT - OFF WALL EXCAVATION Equipment	CUT-OFF WALL CONSTRUCTION	Non-Spec. Spec. Theoretical	Concrete Grout Concrete	(FT / HR) (FT / HR) Date (CU.YD.) (CU.YD.) (CU.YD.)	6.50 13.85 06/23/93 25 21.0 19.0%
	KCAVATION Drill		≡	Redrill Drill	(HRS)	90 6.50

Total Drill Time = Average Penetration Rate =

6.50 Hours 13.85 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

1.26" N X 1.01" E 21.87 23.35 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 156 Area "A"

	0111-0	JEE WALL EXCAVA	NOIL						CUT-OFF V	VALL CONS	TRUCTION			
		1	Drill Footage		Pure Drill Time		Penetration Rat	te			Non-Spec.	Spec.	Theoretical	
Drilling	Rig	g.		Redrill	Drill	Redrill	Drill FT / HR	Redrill (FT / HR)	Concrete	Grout (CU,YD.)	Concrete (CU.YD.)	Concrete (CU.YD.)	Volume (CU.YD.)	Overbreak
Date	*	Metriod	50	6.0	90 6		30.10		04/20/93			8	21.7	33.5%
04/19/93	-	XL-24	3		30.5		2							

Total Drill Time = Average Penetration Rate =

3.08 Hours 30.19 Feet / Hour

Total Redrill Time = Average Penetration Rate =

Verticality Information

1" S X 0" E/W 23.35 27.45

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 157

Area "A"

I CUT - OFF WALL CONSTRUCTION	Penetration Rate Spec. Theoretical	Redrill Drill Redrill Concrete Grout Concrete Concrete Volume Overpreak	13.33 06/17/93	
	Time Penetration Rate	Drill (FT / HB)	6.75	
TION	Drill Footage Pure Dril	Drill Redrill	06	
IIT-OFF WALL EXCAVA	nipment	Rig Excavation	# Memod 2 DHD130A	
C	, Lie	Drilling	Date 06/17/93	

Total Drill Time = Average Penetration Rate =

6.75 Hours 13.33 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

.5" S X .5" E 27.45 29.53 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 158 Area "A"

	CUT-O	FF WALL EXCAVA	TION						CUT-OFF V	VALL CONS	STRUCTION			
	Equipmen	1	Drill Footage		Pure Drill Time		Penetration Rate	te			Non-Spec.	Spec.	Theoretical	
Drilling	Rid	Excavation	Drill	Redrill		Redrill	Drill	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
Date	9*	Method	E	Œ	(HRS)	(HRS)	(FT / HR)	(FT/HR)	Date	(CU:YD:)	(CU:YD.)	(CU.YD.)	(CU.YD.)	
05/08/93	2	DHD130A	8		8.50		10.59		05/10/93			25.5	21.0	21.3%
	•			8		C		8 5	0013030			α	7.0	7.0
05/25/93	8	DHD130A		3		2.30		200	02/22/20			•	2.	

Total Drill Time = Average Penetration Rate =

8.50 Hours 7.06 Feet / Hour

Total Redrill Time = Average Penetration Rate =

2.50 Hours 12.00 Feet / Hour

1.55" N X .52" W 29.53 11.33 S-ARC North = S-ARC South = Verticality Information
At Full Depth =

Quality Coring: None.

Comments: Accidently redrilled 30' on 5/25/93

Primary Pile # 159

Area "A"

	CUT-C	JFF WALL EXCAVA	NTION						CUT-OFF V	VALL CONS	TRUCTION			
	Equipmen	14	Drill Footage		Pure Drill Time		Penetration Ra	ıte			Non-Spec.	Spec.	Theoretical	
Drilling	Big	Excavation		Redrill	Drill	Redrill		Redrill	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
Date	,*	Method	Œ	Œ	(HRS)	(HRS)	(FT/HR)	(FT/HR)	Date	(CU.YD.)	(CU.YD.)	(CU.YD.)	(CU:VD.)	
06/22/93	2	DHD130A	86		90.0		14.80		06/22/93			24	21.0	14.2%

Total, Drill Time = Average Penetration Rate =

6.08 Hours 14.80 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

6.57" S X 1.26" W At Full Depth = S-ARC North = S-ARC South =

11.33

Quality Coring: None.

Secondary Pile # 160 Area "A"

TIL	OFF WALL EXCAVA	NOITA						CUT-OFF	WALL CONS	TRUCTION			
uipment	ent	Drill Footage		Pure Drill Time		Penetration Rate	1			Non-Spec.	Spec.	Theoretical	
Ę¥	Excavation	E	Redrill	Orill (HRS)	Redrill (HRS)	Drill (FT / HR)	Redrill (FT / HR)	Concrete Date	Grout (CU.YD.)	Concrete (CU.YD.)	Concrete (CU.YD.)	Volume (CU.YD.)	Overbreak
	1 DHD130A	88		8.75		10.63		04/14/93			88	21.7	19.7%

Total Drill Time = Average Penetration Rate =

8.75 Hours 10.63 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

At Full Depth =

6.75°S X 3°E 25.97 37.08 S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 161 Area "A"

21.3% Overbreak 21.0 Theoretical Volume (CU.YD.) 25.5 Spec. Concrete (CU.YD.) Non-Spec. Concrete (CU.YD.) CUT-OFF WALL CONSTRUCTION Grout (CU.YD.) 05/18/93 Concrete Date Redrill (FT / HR) 11.80 (FT/HB) Redrill (HRS) Pure Drill Time Drill (HRS) 7.63 Redrill (FT) Drill Footage Drill (FT) 8 CUT-OFF WALL EXCAVATION Excavation DHD130A quipment Rig 05/17/93 Drilling Date

Total Drill Time = Average Penetration Rate =

7.63 Hours 11.80 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

1.83" N X 0" E/W 37.08 14.85 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 162 Area "A"

33.5% Overbreak 21.7 heoretical Volume (CU.YD.) 8 Spec. Concrete (CU.YD.) Non-Spec. Concrete (CU.YD.) CUT-OFF WALL CONSTRUCTION Grout (CU.YD.) 04/05/93 Concrete Date Redrill (FT / HR) enetration Rate 13.46 (FT/HR) Redrill (HRS) ure Drill Time Drill (HRS) 6.91 Redrill (FT) 8 臣 CUT-OFF WALL EXCAVATION Excavation **DHD130A** Rig 04/03/93 Drilling Date

Total Drill Time = Average Penétration Rate =

6.91 Hours 13.46 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

4.8" S X 3.29" E

14.85 31.57 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 163 Area "A"

9.4% Overbreak 21.0 Theoretical Volume (CU.YD.) g Spec. Concrete (CU.YD.) Non-Spec. Concrete (CU.YD.) CUT-OFF WALL CONSTRUCTION Grout (CU.YD.) 06/12/93 Concrete Date Redrill (FT / HR) Penetration Rate Drill 13.68 (FT/HR) Redrill (HRS) ure Drill Time Drill (HRS) 6.58 Redrill (F) Drill Footage Drill (FT) 8 CUT-OFF WALL EXCAVATION Excavation DHD130A quipment Rig N 06/12/93 Drilling Date

Average Penetration Rate = Total Drill Time =

6.58 Hours 13.68 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

.76" S X .76" W 31.57 26.18

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 164 Area "A"

	heoretical	Overbreak	(i)	21.7 47.3%
	_		-	8
z	Spec.			
NSTRUCTIO	Non-Spec.	Concrete		
FF WALL CO		Grout	CU.YD.	93
CUT-OFF		٥ —	Date	03/30/93
	n Rate	Redrill	(FT/HR)	7.4
	Penetration	Drill	(FT / HR)	10.74
	ime	Redrill	(HRS)	99
	Pure Drill Tim	Duil	(HRS)	
	9	Redrill	E	93
ATION	Drill Footag	Drift	Ē	
OFF WALL EXCAV	i k	Excavation	Method	DHD130A
CUT-	Equipmen	Ë	*	
		Drilling	Date	03/29/93

8.66 Hours 10.74 Feet / Hour

Total Drill Time = Average Penetration Rate ==

Total Redrill Time = Average Penetration Rate =

None

Verticality Information
At Full Depth =

1.03" S X 1.81" E

26.18 28.12 S-ARC North = S-ARC South =

Quality Coring: NX/NQ to 82' on 8/14/93.

Comments:

Primary Pile # 165 Area "A"

		Cverbreak		14.2%
	Theoretical	_	(CU.YD.)	21.0
	Spec.	Concrete	(CU.VD.)	24
TRUCTION	Non-Spec.	Concrete	(CU.YD.)	
WALL CONS		Grout	(CV.YD.)	
TCUT-OFF W		Concrete	Date	05/12/93
	1	Redrill	(FT/HB)	
	Penetration Rate	酒	(FT/HR)	14.02
	П	Redrill	(HRS)	
	Pure Drill Time		(HRS)	6.42
		Redrill	Œ	
ATION	Drill Footage	Dril	Œ	06
F WALL EXCAVA		Excavation	Method	DHD130A
CUT-O	quipment	Rig	9#	2
		Drilling	Date	05/12/93

Total Drill Time = Average Penetration Rate =

6.42 Hours 14.02 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

0" N/S X .26" E 28.12 29.50 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 166 Area "A"

CUT – OFF WALL EXCAVATION CUT – OFF WALL EXCAVATION Pure Drill True Pervetation Rate Pervetation Rate Pervetation Rate CUT – OFF WALL CONSTRUCTION Non – Spec. Spec. Theoretical Volume Overbreak Drilling Pig Rig Equipment Concrete Concrete Concrete Concrete Volume Overbreak Date # Method (F) (HRS) (FI / HR)					-							101101			
Equipment Drill Footage Pure Drill Time Penetration Rate Panetration Rate Redrill Pure Drill Time Penetration Rate Post (FT / HR) FT / HR) <t< td=""><td></td><td>CUT-0</td><td>FF WALL EXCAVA</td><td>NOIL</td><td></td><td></td><td></td><td></td><td></td><td>CUI-CFF V</td><td>VALL CONS</td><td>HOCION</td><td></td><td></td><td></td></t<>		CUT-0	FF WALL EXCAVA	NOIL						CUI-CFF V	VALL CONS	HOCION			
Highest Excavation Drill Drill Redrill Drill Pedrill Drill Drill (HRS) (HRS) (FT/HR)		Fourinment		Drill Footage		Pure Drill Time		Penetration Ra	te			Non-Spec.	Spec.	Theoretical	
# Method (F1) (F1) (F15) (F18)	Drilling	Hig		Drie (Redrill	Drill	Redrill	Drill	Redrill 1	Concrete	Grout	Concrete	Concrete (CU YD.)	(CU.YD.)	Overbreak
1 DHD130A 91 15.00 6.07 03/23/93 28 21.3	Date	#	Method	(FI)	(1)	(SHE)	CHILD	נונו / נונו	(III / II)	Cato	20.00				
	03/22/93	-	DHD130A	6		15.00		6.07		03/23/93			82	21.3	31.8%

Total Drill Time = Average Penetration Rate =

15.00 Hours 6.07 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

2.02" N X O' E/W 29.50 24.56 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 167 Area "A"

AVATION CUT-OFF WALL CONSTRUCTION	Non-Spec. Spec. Ineoretical.	Drill Redrill	(HKS) (HKS) (FL/ TRI) (FL/ TRI) (ARIS	90 5.83 15.44 05/27/93 24 21.0 14.2%
TION	Drill Footage	Drill Redrill	(FI) (FI)	06
SUT-OFF WALL EXCAVA	nuioment	Rig Excavation	# Method	2 DHD130A
פ	Ē	Drilling	Date	05/27/93

Total Drill Tirne = Average Penetration Rate =

5.83 Hours 15.44 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

.51" N X 0" E/W 24.56 27.43 At Full Depth =

S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 168 Area "A"

21.5 Theoretical Volume (CU.YD.) 26.5 Spec. Concrete (CU.YD.) CUT-OFF WALL CONSTRUCTION
Concrete Grout Concrete
Date (CU.YD.) (CU.YD.) 03/18/93 Redrill (FT / HR) Penetration Rate
Drill
(FT / HR) (12.71 Redrill (HRS) Pure Drill Time Drill (HRS) 7.24 Redrill (FT) CUT-OFF WALL EXCAVATION

Cut-Off WALL EXCAVATION

Drill Footage

Drill Footage

(FT) 8 DHD130A 03/18/93 Drilling Date

23.3%

Overbreak

7.24 Hours 12.71 Feet / Hour

Total Drill Time.= Average Penetration Rate =

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

1" N X 1" E 27.43 27.78

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 169

Area "A"

	CUT-C	JFF WALL EXCAVA	TION				Donotration Do	9	CUT-OFF V	VALL CONS	TRUCTION Non-Spec.	Spec.	Theoretical	
	Equipment	1	Unil Footage		Fure Unit I me	-				1	-	Concesso	Volume	Overhreak
Drilling	Rig	Excavation	Dill	Redrill	E O	Redrill		Hedrill	Concrete			CAICIE		
Date	*	Method		Œ	(HRS)	(HRS)	FI/HB	(FI/HB)	Date	(70.70)	ואריותיו	100	1.2	
06/07/93	2	DHD130A	8		6.00		15.00		06/90/93			24	21.0	14.2%

Total Drill Time = Average Penetration Rate =

6.00 Hours 15.00 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

1.76" N X O" E/W At Full Depth =

27.78 S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 170 Area "A"

			Cverbreak				25.7%	
	Theoretical		Volume		20.00		21.5	
	Chac	4	Concrete	Ś	20.10.		27	
TRUCTION	Mon Cnor	NO.	Concrete	5	20.10.			
WALL CONS			Grout	9	CO.10.)			
CUT-OFF \			Concrete		Late		03/13/93	
		Hate	Redrill		L HH			
	1	Penetration H	Duil		E / HA		8.65	
		•	Redrill		(HRS)			
		Pure Drill Time	Ji-C	5	(HRS)		10.63	
			Dodrill		Ē			
NOIT	1011	Drill Footage	111111111111111111111111111111111111111	5	Œ		26	
T OFF WALL EYCAVA		-		EXCAVALION	Method		DHD130A	
TITO		Fourinmen	1	Ž	*		-	
				Culling	Date	Date	03/12/93	

Total Drill Time = Average Penetration Rate =

10.63 Hours 8.65 Feet / Hour

None

Total Redrill Time = Average Penetration Rate ==

Verticality Information

4.5" N X O" E/W 30.44 19.6 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 171 Area "A"

Total Drill Time = Average Penetration Rate =

5.00 Hours 18.00 Feet / Hour

Total Redrill Time = Average Penetration Rate ==

None

Verticality Information

0" N/S X .5" W 19.6 25.24 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 172

Area "A"

		Suchanie	NEW CONTRACT		5 39.6%	
	Theoretical	Vohimo	(CU:YD.)		21.5	
	Spec.		(CU.YD.)		30	
LL CONSTRUCTION	Non-Spec	1000	Concrete			
WALL CONS			godf S	20.00		
CUT-OFF			Concrete	Dale	02/26/93	
			Redrill	(בו / וח)		
		Penetration right	Drill	(FI / HH)	10.04	
			Redrill	HHS		
	ı	Pure Drill Ime	Dill	(HRS)	9.16	
			Redrill	E		
HON	101	Orill Footage	Drill	ED	8	
AVACANT EVOAVA	JEE WALL EXCAVE	14	Excavation	Method	DHD130A	
	100	CO. Harmon	Ric	*	1	
			Drilling	Date	02/24/93	

9.16 Hours 10.04 Feet / Hour

Total Drill Time = Average Penetration Rate =

None

Total Redrill Time = Average Penetration Rate ==

Verticality Information

t"SX.77"E 25.24 31.06

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 173

Area "A"

	L	Vetime Chartener	ACIDITIO	_	1		24.5 21.0 16.6%	
	Spec	1	Concrete		77		24	
CUT-OFF WALL CONSTRUCTION	Non-Snec	Mai chee.	Concrete	3	(VO.1D.)			
WALL CON			Grout		(20.10.)			
CUT-OFF			Concrete		Date		02/22/30	
			Redrill		EI/HR			
		Penetration Hate	====	5	FT/HB)		16.36	
			Dodrill		E SS			
		Pure Drill Time	= 700	5	(HRS)		5.50	
			1770	Hedu	٤			
HOLL	201	Onill Footage		===	٤		06	
ALVA COM LINE	COI - OFF WALL EXCAVA		ľ	Excavation	Mothod	Menica	DHD130A	
	2-100	Continuo		E	? *	#	8	
				Drilling	2	Cale	05/22/93	

Total Drill Time = Average Penetration Rate =

5.50 Hours 16.36 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

2.22" N X 0" E/W 31.06 24.57 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 174 Area "A"

	CHT-OFF V	FE WALL EXCAVA	MOIL						CUT-OFF V	VALL CONS	TRUCTION			
			Dell Contago		Sura Drill Timo		Penetration Rate	a			Non-Spec.	Spec.	Theoretical	
	Equipment		Dilli rookaya		_ 1		1000000					0	Vehime	O total road
Orilling	E.	Fxcavation	Dilli	Redrill	Ē	Redrill		Hedrill	Concrete	Grout	Concrete	Concrete	ACIDION	OVERDIBER
2	n *	Mothod	Œ	٤	HRS	(HRS)	FT/HR)	(FT / HR)	Date	(CC:YD:)	(CU.YD.)	(CU.YD.)	(CU.YU.)	
Date		Michigan												
02/01/93	2	DHD130A	9		5.50		16.55		02/02/93			æ	21.3	55.3%

Total Drill Time = Average Penetration Rate =

5.50 Hours 16.55 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

.75" N X 1" W 24.57 25.69

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: NX/NQ to 92' on 2/12/93

Comments:

Primary Pile # 175 Area "A"

CUT - OFF WALL CONSTRUCTION	Non-Spec. Spec. Theoretical	Redrill Drill Redrill Co	(HR) (HR) (FL/HR) (FL/HR) (SCIE)	7.75 11.61 06/03/93 24 21.0 14.2%
7		Redrill Drill	(HRS)	90 7.75
CLIT_OFF WALL EXCAVATION	Fourierent	Excavation	# Method	1 DHD130A
		Drilling	Date	£6/£0/90

Total Drill Time = Average Penetration Rate =

7.75 Hours 11.61 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

0" N/S X .25" W 25.69 27.47

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 176 Area "A"

	CIIT-O	FF WALL EXCAVA	VIION						CUT-OFF V	WALL CONSTF	TRUCTION			
	Conjournment	-	Drill Footage		Pure Drill Time		Penetration Rate	ute			Non-Spec.	Spec.	Theoretical	
Drilling	Rig	Excavation	Drift	Redrill	Drill	Redrill	Drill	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
Date	#	Method	E	E	(HRS)	(HRS)	(FT/HH)	(FI / HH)	Date	(CO.YD.)	(00.10.)	CO. 10.)	20.10.	
03/16/93	-	DHD130A	88		10.40		26.8		03/16/93			8	21.7	38.1%

Total Drill Time = Average Penetration Rate =

10.40 Hours 8.94 Feet / Hour

Total Redrill Time = Average Penetration Rate =

Verticality Information

.5" N X .5" W 27.47 26.03 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 177 Area "A"

	CIIT	FF WALL EXCAVA	TION						CUT-OFF W	WALL CONSTRUCTION	TRUCTION			
	Fauipmen	1	Drill Footage		Pure Drill Time		Penetration Ra	e			Non-Spec.	Spec.	Theoretical	
Drilling	Rig	Δ,	E C	Redrill	Drill	Redrill	Drill Co.	Redrill (T. / LD)	Concrete	Grout	Concrete	Concrete	(CU.YD.)	Overbreak
Date	*	Method	2	(1)		(SUL)	1011/10	W 1 / 11 W	2000	12	100			
06/14/93	8	DHD130A	8		5.00		18.00		06/14/93			24	21.0	14.2%

Total Drill Time = Average Penetration Rate =

5.00 Hours 18.00 Feet / Hour

None Total Redrill Time = Average Penetration Rate =

Verticality Information

0" N/S X 0" E/W 26.03 21.88

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 178 Area "A"

		(CU,YD.)		21.5 49.0%	21.7 24.3%		
-	Non-Spec.	Concrete Consisted		83			
CUT-OFF WALL CONSTRUCTION		Concrete Grout	Date Co. 10	03/26/93		04/21/93	
	Penetration Rate	_	(FT/HR) (F1/HH	12.01		3 10.00 35.66	
	Pure Orill Time	:		766	3	0.10 2.58	
40	NO.	Drill Redrill		8	76	93 92	
	IT-OFF WALL EXCAVA	ipment	# Method		1 DHD130A	1 DHD130A	
	ರ	-	Drilling	Calc	03/25/93	04/21/93	

Total Drill Time = Average Penetration Rate =

7.76 Hours 11.98 Feet / Hour

2.58 Hours 35.66 Feet / Hour

Total Redrill Time = Average Penetration Rate =

3"S X 3" W 21.88 34.94 Verticality Information

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 179

Area "A"

7	_	-	T	_		
		Overbreak			14.2%	
	Theoretical	Volume	(CU.YU.)		21.0	
	Spec.	Concrete	(CU.YD.)		24	
TRUCTION	Non-Spec.	Concrete	(CU.YD.)			
TO IT - OFF WALL CONSTRUCTION		Grout	(CU.VD.)			
ICI IT-OFF		Concrete	Pate		05/13/93	
		Radrill	Q1/15/	ונון לוווא		
	C. C	Penetration hate	į	(FI / HR)	12.26	
			III Deu	(HHS)		
		Pure Drill Time	5	(HRS)	7.34	
			Redrill	Œ		
	VION	Drill Footage	Ē	(FI)	08	
	F WALL EXCAVA		Excavation	Method	A0040HG	ROSIDINO
	0-100	Juipment	Rici	°*	(N
	2	Ĭ	Drilling	Date		05/13/93

Total Drill Time = Average Penetration Rate =

7.34 Hours 12.26 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

3.66" N X 0" E/W 34.94 25.05 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 180 Area "A"

		AVA OVE LEVEN AVA	NO!E						CUT-OFF V	WALL CONS	TRUCTION			
		JEE WALL EACAVA	NOIL								20-0	. 0000	Theoretical	
	For immen	1	Drill Footage		Pure Drill Time		Penetration Hate	- 1			NOT-Spec.	of of	Toolog and	
Drilling	Rig	Excavation	Drill	Redrill	Drill	Redrill	Drill	Redrill	Concrete	Grout	Concrete	Concrete	(CK IC)	Cvenoratik
Date	*	Method	(FT)	E	(HRS)	(HKS)	(FI / HH)	(FI / HH)	Care	(20.10.)	20.10.	10011001		
05/04/93	2	DHD130A	88		6.75		13.63		05/04/93			27.5	21.5	28.0%

6.75 Hours 13.63 Feet / Hour

Total Drill Time = Average Penetration Rate =

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

2.5" N X 1" W 25.05 26.89 At Full Depth =

S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 181 Area "A"

16.6% Overbreak 21.0 Theoretical Volume (CU.YD.) 24.5 Spec. Concrete (CU.YD.) Non-Spec. Concrete (CU.YD.) CUT-OFF WALL CONSTRUCTION Grout (CU.YD.) 02/53/33 Concrete Date Redrill (FT / HR) Penetration Rate Drill (FT / HR) 15.44 Redrill (HRS) Pure Drill Time 5.83 Redrill (F) II Footage Drill (FT) 8 CUT-OFF WALL EXCAVATION Excavation DHD130A S S 05/28/93 Drilling Date

Total Drill Time = Average Penetration Rate =

5.83 Hours 15.44 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

2.78" N X 2" E 26.89 18.5 At Full Depth =

S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 182 Area "A"

	OLIT-O	PE WALL EXCAVE	ATION						CUT-OFF \	WALL CONS	TRUCTION			
		*	Drill Footage		Pure Drill Time		Penetration Ra	ıte			Non-Spec.	Spec.	Theoretical	
Driffing	Rig	Ţ	E I	Redrill	Drill	Redrill		Redrill (ET / HD)	Concrete	Grout	Concrete (CLI YD.)	Concrete (CU.YD.)	Volume (CU.YD.)	Overbreak
Date	#	Method	(F)	1	2	CUL			2					
04/14/93	-	DHD130A	93		6.16		15.10		04/15/93			28	21.7	28.9%

Total Drill Time = Average Penetration Rate =

6.16 Hours 15.10 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

2.28°S X 3.29°E Verticality Information

At Full Depth =

18.5 30.29 S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 183 Area "A"

Non-Spec. Concrete (CU.YD.) CUT-OFF WALL CONSTRUCTION Grout (CU.YD.) 05/19/93 Concrete Date Redrill (FT/HR) enetration Rate Drill (FT / HR) 12.28 Redrill (HRS) Pure Drill Time Drill (HRS) 7.33 Redrill (FI) Drill Footage Drill (FT) 8 CUT-OFF WALL EXCAVATION Excavation **DHD130A** 8 High Tight 05/19/93 Drilling Date

14.2%

21.0

24

Overbreak

Theoretical Volume (CU,YD.)

Spec. Concrete (CU,YD,)

Total Drill Time =

7.33 Hours 12.28 Feet / Hour

Average Penetration Rate =

None

Total Redrill Time = Average Penetration Rate =

At Full Depth = Verticality Information

.5" N X .5" E 30.29 23.77 S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 184

Area "A"

		hanhank	Overbloan			78 067	20.07	
	Theoretical	Mahimo	ACIDINA	(CU.YD.)		7 10	21.1	
	Spec		Concrete	(CU:YD:)		8	8	
ICUT-OFF WALL CONSTRUCTION	Alon-Snor	Mail open.	Concrete	(CU.YD.)				
WALL CONS			Grout		20.00			
CUT-OFF			Concrete	Oate	Date		02/27/93	
		ate	Redrill	(dn/ L)	(1117)	_		
		Penetration Hate	Dri	į	מנו / ונו		6.33	
		•			(AHS)			
		Pure Drill Time	1	5	(HRS)	L	14.69	
			1177	Heduli	E			
14011	202	1 Deill Ecotage		5	E		86	
110000	T-OFF WALL EXCAV			Excavation	Method		DHD130A	
			dupmen	Big)*	-	-	
1				Drilling	Pate	Cano	86/944	

14.69 Hours 6.33 Feet / Hour

Total Drill Time = Average Penetration Rate =

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

1.5" S X .75" E 23.77 28.73

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 185

Area "A"

	Non-Spec. Spec.	Grout Concrete Concrete Volume Overpress	77.70	25.5 21.5 18.7%	
CUT-OFF WALL		Concrete	Date	04/05/93	
	Penetration Rate	Drill Redrill	(FT/HR) (FT/HR)	12.96	
	ure Drill Time	Redrill		7.10	
N C	Olv Feelbade	Drill Redrill	(F)	26	
CFF WALL EVOAVATI	OFF WALL EXCAVAL	Fycavation	Method	1 DHD130A	
	- CO	Chilipa	Date #	04/03/93	

Total Drill Time = Average Penetration Rate =

7.10 Hours 12.96 Feet / Hour

None Total Redrill Time = Average Penetration Rate =

Verticality Information

0" N/S X 2.53" E 28.73 17.97

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 186 Area "A"

	1	SEE WALL EXCAV	ATION						CUT-OFF V	JT-OFF WALL CONSTRUCT	TRUCTION			
	3	THE PART INCHAIN									111	Coco	Thornotinal	
	Common	34	I Drill Footage		Pure Drill Time		Penetration Hate	0			NOTI-Spec.	3	The control	
		11			-			C	O-marine	1	Concrate	a di Cico	O COLUMN	CVECTORS
Calling	7.0	Evention	į	Redrill		Hedrill	=======================================		Coliciere	305	COLCIGIO	2000	- Common	
2	2	- CONTRACTOR	Ę	Ę	10010	7007	APT / HD/	FT/HB	Date	(25.20)	(CC, AD)	(CO:YD.)	(CO.YD.)	
Date	*	Method	(FI)		(CHIN)	2	1		200					
02/22/93	-	DHD130A	88		7.50		12.40		02/23/33			58	21.7	19.7%

7.50 Hours 12.40 Feet / Hour

Total Drill Time = Average Penetration Rate =

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

3"S X 9" W 17.97 29.77 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 187

Area "A"

		-	í		9.4%	
		Sportrook				
	Theoretical	Vohimo.		20.00	21.0	
	Spec.	Comment		77	8	
TRUCTION	Non-Spec.	0	Concrete	(CO.TU.)		
CUT -OFF WALL CONSTRUCTION		-	arout GV 150	('01.0')		
CUT-OFF			Concrete	egen	05/07/93	
	ate	ı	Hedrill ((FI/HH)		
	Penetration Rate		E .	(FI/HR)	12.86	
			Redrill	(HRS)		
	Duro Drill Time	e١	Ē	(HRS)	7.00	
			Redrill			
NOLL	Dell Coopers		Diril	<u>[]</u>	06	
F WALL EXCAVA	THE TWO I		Excavation	Method	DHD130A	
	5	Eduloment Transment	Rig	*	2	
			Drilling	Date	05/07/93	

Total Drill Time = Average Penetration Rate =

7.00 Hours 12.86 Feet / Hour

None Total Redrill Time = Average Penetration Rate =

Verticality Information

.5" N X 1.5" W 29.77 26.56 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 188 Area "A"

			TOTAL						CITTOFFV	VALL CONS	TRUCTION			
	2-122	THE WALL EXCAVE	A COL									Š		
	Fortimen	4	I Drill Footage		Pure Drill Time		Penetration Rate	9			Non-Spec.	o de co	neorencal	
Drilling	Rig	Excavation	Ē	Redrill	Orill	Redrill	Drill (FT / HB)	Redrill (FT / HR)	Concrete	Grout (CLI YD.)	Concrete (CU.YD.)	Concrete (CU.YD.)	Volume (CU.YD.)	Overbreak
Date	*	Memod		(1)	(SUL)	(211)								
01/12/93	2+	Test DHD130A	13		15.80		5.82		01/21/93			88	21.5	30.3%
	_					-								

Total Drill Time =

15.80 Hours 6.65 Feet / Hour

Average Penetration Rate =

Total Redrill Time = Average Penetration Rate =

At Full Depth = Verticality Information

.38" N X 1.75" W 26.56 26.04 S-ARC North = S-ARC South = Quality Coring: NQ FROM 0' TO 89.8'. MOVED 8" NORTH OF CENTER OF PILE #188 TOOK 6" CORE FROM 0' TO 14.9'

Comments:

Primary Pile # 189 Area "A"

	1	VEE WALLEY CAVA	NOITA						CUT-OFF W	WALL CONSTRUCTION	TRUCTION			
	0	THE WALL CALAN	1011									13.5	Theoremine	
	Fourinmen	Į.	Drill Footage		Pure Drill Time		Penetration Rate				Non-spec.	obec.	Hedelikal	
Drilling	Bio	Excavation		Redrill	Drill	Redrill	Drill	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
200	*	Method	Œ	Œ	HRS)	(HRS)	(FT / HR)	(FT / HR)	Date	(CU.YD.)	(CU.YD.)	(CU:VD:)	(CU.YD.)	
Cald		Polinoid												
06/01/93	2	DHD130A	8		6.50		13.85		06/02/93			24	21.0	14.2%

Average Penetration Rate = Total Drill Time =

6.50 Hours 13.85 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

0" N/S X .76" E 26.04 32.3 At Full Depth =

Verticality Information

S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 190

Area "A"

	7110	SEE WALLEY OVA	MOIT						CUT-OFF V	VALL CONS	TRUCTION			
	5	これ とくく コープン・コープ									100	25-30	Theoremies	
	Editioner	10	Drill Footage		Pure Drill Time		Penetration Rate				Non-spec.	obec.	Henence	
					===	Dodrill	11.00	Dodrill	Concrete	200	Concrete	Concrete	Volume	Overbreak
Driffing	2	Excavation	5	Hedrill			5		2000			1000	100	
2	n .		Ę	Ę	HES	HPS	(FT / HB)	(FT/ HB	Date	(CU:VD:)	(CU.YD.)	(CO.VD.)	(CU.YU.)	
Date	#	Merion			2000									
03/17/93		DHD130A	8	_	8.57		10.50		03/18/93			26.5	21.0	26.1%

8.57 Hours 10.50 Feet / Hour

Total Drill Time,= Average Penetration Rate =

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

4.6" N X 3.07" W 32.30 18.26 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments: Grout side stabilization test from pile 190 to pile 246

Primary Pile # 191

Area "A"

CUT-OFF WALL CONSTRUCTION	Spec. Theoretical		(UH) (TI) (UH)	8.84 10.19 05/15/93 23 21.0 9.4%
F WALL CO			7	83
ICUT-OF		Concrete	Caro	05/15/9
	te	Redrill	(LI / LID)	
	Penetration Ra		ונו / ונוו	10.19
		Redrill	CHI	
	-		CHES	8.84
		Redrill	(FI)	
TION	Drill Footage	Drill	(F1)	8
F WALL EXCAVA		Excavation	Method	DHD130A
		Rig	#	2
	T	Drilling		05/15/93

Total Drill Time = Average Penetration Rate =

8.84 Hours 10.19 Feet / Hour

None Total Redrill Time = Average Penetration Rate =

Verticality Information

.5' S X .5' W 18.26 30.75 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 192 Area "A"

•	CHT-O	IT-OFF WALL EXCAVA	TION						CUT-OFF V	VALL CONS	STRUCTION			
	Fallipment		Drill Footage		Pure Drill Time		Penetration Rate	te			Non-Spec.	Spec.	Theoretical	
Drilling	Rig	Excavation	E 6	Redrill	Drill	Redrill	Drill (FT / HR)	Redrill (FT / HR)	Concrete	Grout (CU.YD.)	Concrete (CU.YD.)	Concrete (CU.YD.)	Volume (CU.YD.)	Overbreak
Date	*	Menioo			2					1				
03/29/93	-	DHD130A	8		9.00		15.33		03/23/33			27.5	21.5	28.0%

Total Drill Time = Average Penetration Rate =

6.00 Hours 15.33 Feet / Hour

None

Total Redrill Time = Average Penetration Rate ==

At Full Depth = Verticality Information

2.56" N X 2.3" W

30.75 S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 193 Area "A"

14.2% Overbreak 21.0 Theoretical Volume (CU,YD.) 24 Spec. Concrete (CU.YD.) Non-Spec. Concrete (CU.YD.) CUT-OFF WALL CONSTRUCTION Grout (CU.YD.) 05/27/93 Concrete Date Redrill (FT / HR) 11.73 (FT/HB) Redrill (HRS) ure Drill Time Drill (HRS) 7.67 Redrill (FT) Drill Footage Drill (FT) 8 CUT-OFF WALL EXCAVATION Excavation DHD130A Method Equipment Rig 8 05/27/93 Drilling Date

Total Drill Time = Average Penetration Rate =

7.67 Hours 11.73 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

.5" S X 1.26" W At Full Depth = S-ARC North = S-ARC South = Verticality Information

22.06

Quality Coring: None.

Secondary Pile # 194 Area "A"

		NEE WALL EXCAVA	TION						CUT-OFF WALL CONSTRUCTION	VALL CONS	TRUCTION			
		יייייייייייייייייייייייייייייייייייייי	1011									ı	Theoremient	
	Folimen	J.	Drill Footage		Pure Drill Time		Penetration Hate				Non-spec.		Tage Car	
Drilling	Die	Excavation	Drill	Redrill		Redrill	Drill	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
	2 4	Method	Ę	Ę	HRS	(HRS)	(FT / HR)	(FT / HR)	Date	(CU.YD.)	(CU.YD.)		(CU:VD.)	
Dale	#	Menio												
04/07/93	-	DHD130A	88		6.80		13.68		04/07/93			123	21.7	15.1%
	_													

6.80 Hours 13.68 Feet / Hour

Total Drill Time = Average Penetration Rate =

Total Redrill Time = Average Penetration Rate =

Verticality Information

1.76" S X 2.53" E At Full Depth = S-ARC North = S-ARC South =

24.52 30.73

Quality Coring: None.

Comments:

Primary Pile # 195 Area "A"

		Cverpreak		19.0%	
	Theoretical	Volume	(CO, TO.)	21.0	
	Spec.	Concrete	(CO.TD.)	R	
CONSTRUCTION	Non-Spec.	Concrete	(CU.YD.)		
WALL CONS		Grout	(CO. AD.)		
CUT-OFF		Concrete	Date	05/12/93	
		Redrill	(FT/HR)		
	Penetration Rate	Orill	FT/HB)	12.86	
		Redrill	(HRS)		
	Pure Drill Time		(HRS)	7.00	
		Redrill	(FD)		
ATION	Drill Footage	Drill	Œ	90	
FF WALL EXCAVA	-	Excavation	Method	DHD130A	
cut-o	Fauiomen	Ŗ	*	2	
		Drilling	Date	05/11/93	

Total Drill Time = Average Penetration Rate =

7.00 Hours 12.86 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

1.25" N X 1.25" E 30.73 24.79 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 196 Area "A"

		Overbreak			24.3%	
	Theoretical	Volume	(CU.YD.)	1	21.7	
	Spec.	Concrete	(CU.YD.)	1	27	
STRUCTION	Non-Spec.	Concrete	(CU.YD.)			
WALL CONS		Grout	(CU.YD.)			
CUT-OFF V		Concrete	Date		04/17/93	
	Penetration Rate	Redrill	(FT / HR)		18.00	
		Dij.	(FT / HR)	16.22	9.18	
	Pure Drill Time	Redrill	(HRS)		3.00	
		Drill	(HRS)		4.25	
		Redrill	E		ফ	
ATION	Drill Footage	Dill	Œ	22	8	
F WALL EXCAVA	Equipment	Excavation	Method	DHD130A	DHD130A	
CUT-OF		Rigin	°*	-	-	
		Drilling	Date	02/07/93	04/16/93	

Total Drill Time = Average Penetration Rate =

7.58 Hours 12.27 Feet / Hour

3.00 Hours 18.00 Feet / Hour

Fotal Redrill Time = Average Penetration Rate =

Verticality Information

0" N/S X 1.06" W 24.79 26.49

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 197 Area "A"

		Overbreak		9.4%
	Theoretical	Volume	(CU.YD.)	21.0
	Spec.	Concrete	(CU.YD.)	83
TRUCTION	Non-Spec.	Concrete	(CU.YD.)	
WALL CONS		Grout	(CU:YD.)	
CUT-OFF V		Concrete	Date	06/12/93
	Penetration Rate	Redrill	(FT / HR)	
			(FT/HR)	16.36
		Redrill	(HRS)	
	Pure Drill Time	Drill	(HRS)	5.50
		Redrill	Œ	
TION	Drill Footage	Diil	<u>E</u>	06
FF WALL EXCAVA	Equipment	Excavation	Method	DHD130A
CUT-0		Rid	*	2
		Driffing	Date	06/12/93

Total Drill Time = Average Penetration Rate =

5.50 Hours 16.36 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

o" N/S X 2" E 26.49 26.33 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 198 Area "A"

ළ Spec. Concrete (CU.YD.) CUT-OFF WALL CONSTRUCTION

Concrete Grout Concrete

Date (CU.YD.) 04/22/93 Redrill (FT/HR) Penetration Rate
Drill
(FT / HR) 9.71 Redrill (HRS) Pure Drill Time Drill (HRS) 9.58 Redrill (E) 8 Drill Footage E CUT-OFF WALL EXCAVATION Excavation **DHD130A** Equipment Rig 04/21/93 Drilling Date

79.6%

21.7

Overbreak

Theoretical Volume (CU.YD.)

9.58 Hours 9.71 Feet / Hour

Total Drill Time = Average Penetration Rate =

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

0" N/S X 1.85" W 26.33 26.66

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 199

Area "A"

Total Drill Time =

5.84 Hours 15.41 Feet / Hour

Average Penetration Rate =

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

0" N/S X 0" E/W 26.66 24.51 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 200 Area "A"

	L	CE WALLEYCAVE	MULL						CUT-OFF W	VALL CONS	TRUCTION			
	3	יייייייייייייייייייייייייייייייייייייי	1011								-0-0	0000	Thousandinal	
	Editionent		Drill Footage		Jure Drill Time		Penetration Ha	ite			Non-spec.	300	i i e de la care	
	1	Constinu		Rodrill	III-C	Redrill	li O	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
GIIIII	Ď.	CACAVAIN	5 (į	00.0	1007	60/10		Sate		(CK IS)	CCLYD	(CC/AD)	
Date	*	Method	(FE)		(HHS)	2	(UU / LJ	7	Caro	20.10			0.70	
20,10		COULC	04		191		7.64		01/30/93		93		21.3	274%
38/07/10	7	SOLO	0			-					•		213	
00/00/00	c	SCHO	6	6		200		45.50			t			
20000	v	800				100		24 40			4		12.8	
05/17/03	0	OHD30	22	91		/9.1		27.10			2	1		
3			8	č		A 50		16.31	05/25/93			25.5	21.0	
05/25/93	2	SCHO	36	5		5.00		5.5						

Total Drill Time = Average Penetration Rate =

11.91 Hours 4.53 Feet / Hour

9.25 Hours 29.51 Feet / Hour Total Redrill Time = Average Penetration Rate =

1.5"S X 1" W 24.51 31.15 Verticality Information

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: 6" Joint core 200/201; 31'deep; on 9/23/93

Comments:

Primary Pile # 201 Area "A"

		Cveroreak		14.2%	
		Volume	, A	21.0	
	Spec.	Concrete	20.00	24	
TRUCTION	Non-Spec.	Concrete	יים יים		
CUT-OFF WALL CONSTRUCTION		Grout	(70.10.)		
CUT-OFF		Concrete	LARIG	06/24/93	
		Redrill	(FIZHR)		
	Penetration Rate	Drill	CFI/HH	13.68	
	9	Redrill	(HHS)		
	Pure Drill Time	Drill	(HRS)	6.58	
		Redrill	(FI		
ATION	Drill Footage	Drill	<u>E</u>	06	
FF WALL EXCAVA	1	Excavation	Method	DHD30	
CIT-O	Farrinment	Rig	*	2	
		Drilling	Date	06/24/93	

6.58 Hours 13.68 Feet / Hour Total Drill Time = Average Penetration Rate =

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

1.78" N X 1" W 31.15 23.34 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 202 Area "A"

	CUT-0	IFF WALL EXCAVA	TION						CUT-OFF W	VALL CONST	TRUCTION			
	Equipment	1	Drill Footage		Pure Drill Time		Penetration Rai	9			Non-Spec.	Spec.	Theoretical	
Drilling	Rig	Excavation	E C	Redrill	Orill	Redrill	Dill	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
Date	*	Method	E	E	(HRS)	(HRS)	(FT/HR)	(FT/HR)	Date	(CU.YD.)	(CU.YD.)	(CO.VD.)	(CU.YD.)	
05/05/93	2	DHD30	8		7.42		12.13		05/05/93			8	21.0	33.2%

Total Drill Time = Average Penetration Rate =

7.42 Hours 12.13 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

.5'S X O'E/W 23.34 28.83

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 203 Area "A"

CUT Equipme Equipme Rig Rig Date #	7-OFF WALL EXCAV/	ATION Drill Footage Drill (FT)	Redrill (FT)	Pure Drill Time Drill (HRS) 5.17	Redrill (HRS)	Penetration Rat Drill (FT / HR) 17.41	te Redrill (FT / HR)	CUT-OFF v Concrete Date 05/22/93	GUYD.)	TRUCTION Non-Spec. Concrete (CU.YD.)	Spec. Concrete (CU.YD.)	Theoretical Volume (CU.YD.)	Overbreak

Total Drill Time = Average Penetration Rate =

5.17 Hours 17.41 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

1" N X 0" E/W 28.83 30.24 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 204 Area "A"

	110	CE WALL EVENAVA	MOIT						CUT-OFF W	/ALL CONS	TRUCTION			
	2	THE WALL CAUCAVE	NO.											
	Fauinment		Drill Footage		Pure Drill Time		Penetration Ha	te			Non-Spec.	obec.	Ineoretical	
Drilling	, a	Excavation	- Duli	Redrill		Redrill	E C	Redrill	Concrete		Concrete	Concrete	Volume	Overbreak
2 4	*	Method	E	E	(HRS)	(HRS)	(FT / HR)	(FT / HR)	Date	(CU.YD.)	(CU.YD.)	(CU.YD.)	(CU.YD.)	
Date		200												
04/19/93	_	XL-24	88		2.92		31.85		04/19/93			22	21.7	24.3%

2.92 Hours 31.85 Feet / Hour

Total Drill Time = Average Penetration Rate =

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

4.55" N X 6.32" W 30.24 22.58

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 205 Area "A"

	CUT-O	FF WALL EXCAVA	TION						CUT-OFF V	VALL CONS	TRUCTION			
	Fourinment		Drill Footage		Pure Drill Time		Penetration Rai	9			Non-Spec.	Spec.	Theoretical	
Drilling	Rig	Excavation	Drill	Redrill	Drill	Redrill	Drill	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
Date	*	Method	(F)	Œ	(HRS)	(HRS)	E / HB	(FT/HR)	Date	(CU.YD.)	(CU.YU.)	(CO.YD.)	(CO.VD.)	
					-		00.07		Compaign			ď	24.0	19 PK
06/23/93	2	DHD30	8		8.		288		06/53/90			63	21.0	2000

Total Drill Time = Average Penetration Rate =

7.00 Hours 12.86 Feet / Hour

Total Redrill Time = Average Penetration Rate ==

None

Verticality Information

2.53" N X O" E/W 22.58 20.42 At Full Depth =

S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 206 Area "A"

	1	Overbreak	38.1%	
	_	(CU.YD.)	21.7	
	Spec.	(CU.YD.)	98	
LL CONSTRUCTION	Non-Spec.	Concrete (CU.YD.)		
WALL CONS		Grount (CU:YD.)		
CUT-OFF		Concrete	04/12/93	
	1	Redrill (FT / HR)	1	
	Penetration Rate	Drill (FT / HB)	17.22	
		Redrill		
	Pure Drill Time	Orill	5.40	
		Redrill		
NOIT	Drill Footage	Ē (93	
IT OFF WALL EXCAV	TACE LACA	Ω.	Method DHD30	
H		Rig	*	_
		Drilling	Date 04/10/93	

5.40 Hours 17.22 Feet / Hour

Total Drill Time = Average Penetration Rate =

None

Total Redrill Time = Average Penetration Rate =

1.5"SX1"E At Full Depth = S-ARC North = Verticality Information

20.45 S-ARC South = Quality Coring: NX/NQ to 97'deep on 7/10/93, also made connection with pile 186 during coring, at bottom of cored pile

Comments:

Primary Pile # 207

Area "A"

		Cverbreak		14.2%	
	Theoretical	(CU,YD.)		21.0	
	Spec.	Concrete (CU.YD.)		24	
TRUCTION	Non-Spec.	Concrete			
SUT-OFF WALL CONS		Grout			
CUT-OFF		Concrete	A SECTION AND A	06/26/93	
	te	Redrill (FT / HB)	0.17.11.0		
	Penetration Rate	Drill	AUD / ILI	13.33	
		Redrill	CUL		
	Pure Drill Time	Drill	CHIES	6.75	
		Redrill	(FI)		
MULT	Drill Footage		(F)	8	
CE WALL EYOAVA	יייייייייייייייייייייייייייייייייייייי	ğ	Method	DHD30	
		Rig	*	2	
		Drilling	Date	06/25/93	

Total Drill Time = Average Penetration Rate =

6.75 Hours 13.33 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

4.55" N X 1.77" E

34.48 21.61

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 208 Area "A"

	CHIT	JEF WALL EXCAVA	MION						CUT-OFF W	VALL CONS	TRUCTION			
	Common	1	Drill Footage		Pure Drill Time		Penetration Rate	te			Non-Spec.	Spec.	Theoretical	
Drilling	Rid	Excavation	Drill	Redrill	Drill	Redrill	Duil	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
Date	*	Method	(E)	(FI)	(HRS)	(HRS)	(FT/HR)	(FT/HR)	Date	(CO.YD.)	(CU.YD.)	(20,10.)	(70.10.)	
05/10/93	8	DHD30	35		8.25		11.15		05/10/93			27	21.5	25.7%

Total Drill Time = Average Penetration Rate =

8.25 Hours 11.15 Feet / Hour

Total Redrill Time = Average Penetration Rate =

At Full Depth = S-ARC North = S-ARC South = Verticality Information

1.31" N X .78" W 21.61 26.95

Quality Coring: None.

Comments:

Primary Pile # 209

Area "A"

	1	Cverbreak		14.2%	
	Theoretical	(CU.YD.)		21.0	
	Spec.	Concrete (CU.YD.)		24	
TRUCTION	Non-Spec.	Concrete (CU,YD.)			
WALL CONSTRUCTION		GI VD)			
CUT-OFF		Concrete	200	06/03/33	
	ate	Redrill FT / HB	-		
	Penetration Re		1117	14.59	
		Redrill	200		
	Pure Drill Time	Drill	2112	6.17	
•		Redrill Edition			
MION	Drill Footage			66	
FF WALL FXCAVA		Excavation	Method	DHD30	
	-duipment	Rig	*	-	
		Drilling	Date	06/03/93	

Total Drill Time = Average Penetration Rate =

6.17 Hours 14.59 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

1.5" N X 1" E 26.95 24.53 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 210 Area "A"

		Overbreak		28.5%
	Theoretical	Volume	(CU:VD:)	21.0
	Spec.	Concrete	(CU:YD:)	27
TRUCTION	Non-Spec.	Concrete	(CU.YD.)	
WALL CONS		Grout	(CU.YD.)	
CUT-OFF WA		Concrete	Date	05/14/93
	i I	Redrill	(FT/HR)	
	Penetration Rate	E C	(FT/HR)	10.49
		Redrill	(HRS)	
	Pure Drill Time	Orill	(HRS)	8.58
		Redrill	Ð	
VIION	Drill Footage	Drill	E	06
FF WALL EXCAVA	1	Excavation	Method	DHD130A
CUT-0	- спртеп	Ŗ	n *	2
		Drilling	Date	05/13/93

Total Drill Time = Average Penetration Rate =

8.58 Hours 10.49 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

0' N/S X 0' E/W 24.53 27.47 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 211 Area "A"

Equipment Rig Excar Rig Met		CUT-O	FF WALL EXCAVA	TION						CUT-OFF V	WALL CONSTRUCTIO	TRUCTION			
Rig Excavation Drill Redrill Drill Redrill Drill Redrill Concrete Ground Concrete # Method (FT) (FT) (FT) (FT) (FT) (FT) (CU.YD.) (CU.YD.) 2 DHD130A 90 5.75 15.65 06/26/93 06/26/93		-automent		Drill Footage		Pure Drill Time		Penetration Ra	te			Non-Spec.	Spec.	Theoretical	
# Method (FT) (HRS) (HRS) (FT/HR) (FT/HR) Date (CU.YD.) (Drilling	Ä	Excavation				Redrill	Drift	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
2 DHD130A 90 5.75 15.65	Date	*	Method	<u>[</u>	Œ	(HRS)	(HRS)	FF/HB	(FT/HR)	Date	(CU.YD.)	(CU.YD.)	(CO.YD.)	(CO.YD.)	
	06/26/93	2	DHD130A	6		5.75		15.65		06/26/93			24	21.0	14.2%

5.75 Hours 15.65 Feet / Hour

Total Drill Time = Average Penetration Rate =

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

.5" N X O" E/W 27.47 21.70 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 212 Area "A"

		FE WALL EXCAVE	ATION						CUT-OFF W	ALL CONS	TRUCTION			
T			Drill Ecotogo		Pure Drill Time		Penetration Rai	ţe.			Non-Spec.	Spec.	Theoretical	
	Compinen	_	DE LEGIS			Ded:	-	Dodrill	Concrete	122	Concrete	Concrete	Volume	Overbreak
D.	Hig	Excavation	E O	III DOY	=======================================		5		2000	3	100000	9	9	
Date	*	Method	Œ	Œ	HRS)	(HRS)	FI/HR)	FI/HR)	Date	(CU.VD.)	(CU.YU.)	(CO.VD.)	(50.10.)	
2										İ				
1/20/03	-	XI -24	88		3.17		29.34		04/20/93			88	21.7	28.9%
3														

Total Drill Time =

Average Penetration Rate =

3.17 Hours 29.34 Feet / Hour

Total Redrill Time = Average Penetration Rate ==

None

Verticality Information

2.78"S X 1" E 21.70 21.74 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 213 Area "A"

14.2% Overbreak 21.0 Pheoretical Volume (CU.YD.) 24 Spec. Concrete (CU.YD.) JT-OFF WALL CONSTRUCTION

Non-Spec.

Concrete Grout Concrete

Date (CU.YD.) (CU.YD.) 05/28/93 Concrete Date Redrill (FT / HR) Penetration Rate Drill (FT / HR) 18.00 Redrill (HRS) Pure Drill Time Orill (HRS) 5.00 Redrill (FT) Drill Footage Drill (FT) 8 CUT-OFF WALL EXCAVATION Excavation Method DHD130A N 05/28/93 Drilling Date

Total Drill Time = Average Penetration Rate =

5.00 Hours 18.00 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

1" N X 1.5" E 21.74 29.75 At Full Depth =

S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 214 Area "A"

		ALF MAIL EVENAVA	MOLE						CUT-OFF V	IS	ALL CONSTRUCTION			
		TANKALL DACAY	201								0000	Chor	Thornotinal	
	200	24	Drill Footage		Pure Drill Time		Penetration Rate	- 1			NOT-Spec.	9	W-Line	The state of
	T dulicum				7	Dodrill		Badrill	Concrete	Grout	Concrete	Concrete	Aoume	
Drilling	Bio.	Excavation		Hedri			5		2000			3		
	ρ,	10000	Ę	٤	(HRS)	HRS)	EH/LE	(FI / HR)	Date	CO.YD.)	(.07.00)	(701.02)	20.10.	
Date	*	Mediod												
03/30/93	_	DHD130A	88		7.05		13.19		03/31/93			88	21.7	28.9%

Total Drill Time =

7.05 Hours 13.19 Feet / Hour

Average Penetration Rate =

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

3.5" N X 2.28" W 29.75 25.52 At Full Depth =

S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 215 Area "A"

heoretical Volume (CU.YD.) 24 Spec. Concrete (CU.YD.) Non-Spec. Concrete (CU,YD.) CUT-OFF WALL CONSTRUCTION Grout (CU.YD.) 06/28/93 Concrete Date Redrill (FT / HR) (FI/HB) Redrill (HRS) ure Drill Time Drill (HRS) Redrill Drill Footage Drill (FT) CUT-OFF WALL EXCAVATION Excavation 운* Drilling Date

13.08

6.88

8

DHD130A

8

06/28/93

14.2%

21.0

Overbreak

Average Penetration Rate = Total Drill Time =

6.88 Hours 13.08 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

2.78" N X O' E/W 25.52 21.73 At Full Depth ==

S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 216 Area "A"

Total Drill Time = Average Penetration Rate =

7.42 Hours 12.13 Feet / Hour

Total Redrill Time = Average Penetration Rate =

.5'S X 0' E/W 21.73 27.45 Verticality Information

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 217 Area "A"

		CVeroreak		21.3%	
	Theoretical	Volume CLY I.D.		21.0	
	Spec.	Concrete	100	25.5	
TRUCTION	Non-Spec.	Concrete	131		
WALL CONS		Grout	NAC INC		
CUT-OFF		Concrete	Date	05/26/93	
	ate	Redrill	ML / LID		
	Penetration R	Drill	ונו / ונו	11.87	
	6	Redrill	CAIL!		
	Pure Drill Time	Drill	SHL)	7.58	
		Redrill	111		
ATION	Drill Footage	Drill I	E .	96	
T-OFF WALL EXCAVATION		Ÿ,	Method	DHD130A	
CUT-O	Equipment	Rig	#	2	
		Drilling	Date	05/26/93	

Total Drill Time = Average Penetration Rate =

7.58 Hours 11.87 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

At Full Depth = Verticality Information

0" N/S X 1" W 27.45 29.48 S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 218 Area "A"

П		-				7
		CVerbreak		1.4%	22.4%	
	Theoretical	volume	(CU.YD.)	6.0	21.3	
	Spec.	Concrete	(CU.YD.)		83	
TRUCTION	Non-Spec.	Concrete	(CU.VD.)	ð		
WALL CONS		Grout	(CU:YD:)			
CUT-OFF		Concrete	Date	02/02/33	_	
		Redrill	(FT / HR)		16.89	
	Penetration Rate	E C	(FT / HR)	22.89	11.00	
		Redrill	(HRS)		2.25	
	Pure Drill Time		(HRS)	1.66	4.82	
		Redrill	Œ		88	
ATION	Drill Footage	Orill	(FI)	38	6	
FF WALL EXCAVA		Excavation	Method	DHD130A	DHD130A	
CUT-O	Equipment	Hig	D #	6	1 —	
		Drilling	Pate	W/m/93	04/06/93	

6.48 Hours 14.04 Feet / Hour

Total Drill Time = Average Penetration Rate =

2.25 Hours 16.89 Feet / Hour

Total Redrill Time = Average Penetration Rate =

2" N X 0" E/W 29.48 25.96 At Full Depth = Verticality Information

S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 219

Area "A"

).) Overbreak	21.7 19.7%
	Theoret	Volume (CU.YD.)	82
	Spec.	Concrete (CU.YD.)	N
CUT-OFF WALL CONSTRUCTION	Non-Spec.	Concrete (CU.YD.)	
WALL CON		Grout (CU.YD.)	
CUT-OFF		Concrete	04/22/93
	te	Redrill (FT / HR)	
	Penetration Rate	Orill (FT / HR)	16.91
		Redrill	
	Pure Drill Time	Daill Sabo	5.50
		Redrill	:
ATION	Drill Footage		83
FF WALL EXCAVA		Excavation	DHD130A
CIT-O	-dilipmen	Rig	#
		Drilling	Date 04/22/93

Total Drill Time = Average Penetration Rate =

5.50 Hours .16.91 Feet / Hour

Total Redrill Time = Average Penetration Rate ==

None

Verticality Information

1.85" N X 4.37" W At Full Depth = S-ARC North = S-ARC South =

25.96

Quality Coring: None.

Secondary Pile # 220 Area "A"

		Overbreak	14.2%	
	Theoretical	(CU.YD.)	21.0	
	Spec.	Concrete (CU.YD.)	24	
CONSTRUCTION	Non-Spec.	Concrete (CU.YD.)		
WALL CONS		Grout (CU.YD.)		
CUT-OFF		Concrete	07/01/93	
		Redrill (FT / HR)	1 1	
	Penetration Rate	Onill (FT / HR)	13.68	
		Redrill		
	Pure Drill Time	Drill	6.58	
		Redrill		
MICH	Drill Footage	E (06	
FF WALL FXCAVA		, E	DHD130A	
O III	Follower	Rig	# 20	
-		Drilling	Date 06/30/93	

6.58 Hours 13.68 Feet / Hour

Total Drill Time = Average Penetration Rate =

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

At Full Depth =

2" N X .25" W 26.50 23.76 S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 221 Area "A"

19.0% Overbreak 21.0 Theoretical Volume (CU.YD.) R Spec. Concrete (CU.YD.) CUT-OFF WALL CONSTRUCTION
Concrete Grout Concrete
Date (CU.YD.) (CU.YD.) 05/07/93 Redrill (FT / HR) Penetration Rate 14.61 Drill (FT / HR) Redrill (HRS) ure Drill Time Drill (HRS) 6.16 Redrill (FT) Drill Footage Drill (FT) 8 ATION CUT-OFF WALL EXCAN Excavation DHD130A Equipment Rig # 05/06/93 Drilling Date

Total Drill Time = Average Penetration Rate =

6.16 Hours 14.61 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

0" N/S X .5" E 23.76 21.72 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 222 Area "A"

		Overbreak	19.7%
		(CU.YD.)	21.7
	Spec.	Concrete (CU.YD.)	- 8
TRUCTION	Non-Spec.	Concrete	
NALL CONS		Grout	
CUT-OFF WALL CO		Concrete	04/16/93
	ate	Redrill (FT / HR)	
	Penetration Ra		14.67
		Redrill	2
	Pure Drill Time	Drill	6.34
		Redrill	
MOIL	Drill Footage	E ((F1)
FF WALL EXCAVA		Excavation	DHD130A
CITTO	Fauipmen	Rig	*
		Drilling	Date 04/16/93

Total Drill Time = Average Penetration Rate =

6.34 Hours 14.67 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

3.29°S X 1" E 21.72 32.70 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 223

Area "A"

	CUT-0	PE WALL EXCAVA	TION						CUT-OFF W	VALL CONS	TRUCTION			
	Fottioment	+	Drill Footage		Pure Drill Time		Penetration Rate	ite			Non-Spec.	Spec.	Theoretical	
Drilling	Rig	Excavation	Drill	Redrill	Drill	Redrill	Drill	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
Date	#	Method	(F1)	(L	2	CHES	THE LEASE	ונו / עטו	Adio	200	77.7	NA. IN		
05/19/93	N	DHD130A	06		8.67		10.38		05/19/93			1 23	21.0	19.0%
	_					-								

8.67 Hours 10.38 Feet / Hour

Total Drill Time = Average Penetration Rate =

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

1.25" N X .76" E 32.70 26.35 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 224 Area "A"

		Cverbreak		23.3%	
	Theoretical	(CU.YD.)		21.5	
	Spec.	Concrete (CU.YD.)		26.5	
L CONSTRUCTION	Non-Spec.	Concrete (CU.YD.)			
ξ		Grout (CU,YD.)			
CUT-OFF		Concrete		04/02/93	
	on Rate	Redrill (FT / HR)			
	Penetration R	Drill (FT / HB)		13.53	
	_	Redrift	2		
	Pure Drill Time	Drill	(SUL)	6.80	
		Redrill			
ATION	Drill Footage	100		26	
DEF WALL FXCAVA	1	Excavation	Method	DHD130A	
	Falina	3	#	3	
		Drilling	Date	04/02/93	

Total Drill Time = Average Penetration Rate =

6.80 Hours 13.53 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

1" N X 2" E 26.35 26.77 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 225

Area "A"

	legical	_	(CU.YD.)		21.0 14.2%	
	_	_	Concrete Vo	-	24	
CUT-OFF WALL CONSTRUCTION	Non-Chor	Mail Spar.	Concrete	100.00		
WALL CON			Grout	200		
CUT-OFF			Concrete	Care	05/12/93	
		- 1	Redrill	(UL / LL)		
		Penetration Hate		(FI / HR)	13.66	
			Redrill	(EHES)		
		Pure Drill Time	Drill	(HHS)	6.59	
			Redrill	(FI)		
NOIT	1011	Drill Footage	Drill	Œ	8	
IT OFF WALL FYCAVA	A VACE CAOA		Excavation	Method	DHD130A	
C TI C	5	Fortiment	Rig	*	3 2	
			Drilling	Date	05/11/93	

Total Drill Time = Average Penetration Rate =

6.59 Hours 13.66 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

1"NX.5"E 26.77 21.09 At Full Depth =

Verticality Information

S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 226 Area "A"

21.0% Overbreak 21.5 heoretical Volume (CU.YD.) 8 Spec. Concrete (CU.YD.) CUT-OFF WALL CONSTRUCTION
Concrete Grout Concrete
Date (CU.YD.) (CU.YD.) 04/09/93 Redrill (FT / HR) Penetration Rate Drill 14.60 (FT/HR) Redrill (HRS) Pure Drill Time Drill (HRS) 6.30 Redrill (FT) F WALL EXCAVATION
Drill Footage
Drill
(FT) 8 **DHD130A** Equipment Rig # 04/09/93 Drilling Date

Total Drill Time = Average Penetration Rate ==

6.30 Hours 14.60 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

2.28" S X 3.79" W

21.09 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments: 6" Joint core 226/227; 30.3'deep on 8/19/93

Primary Pile # 227

Area "A"

•	1110	YEE WALL EVENIA	MOIT						CUT-OFF WALL CONSTRUCTION	WALL CONS	TRUCTION			
	100	THE WALL EACH	201								Non-Space	Spec	Theoretical	
	- dumman	4.	Drill Footage		Pure Drill Time		Penetration Hate	Te			1	in the	W-L	A section of
Drilling	Rig	ğ	Drill	Redrill	Drill	Redrill	Drill	Redrill (1)	Concrete	Grout	Concrete	Concrete (CU.YD.)	(CU.YD.)	Overbream
Date	*	Method	(FI)	(FI)	(HRS)	SHE)	מט/ ונו	July III	Caro					
06/28/93	2	DHD130A	8		8.75		10.29		06/53/33			24	21.0	14.2%

Total Drill Time = Average Penetration Rate =

8.75 Hours 10.29 Feet / Hour

Total Redrill Time = Average Penetration Rate ==

None

Verticality Information

2" N X 1" E 31.68 23.75 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 228 Area "A"

8.75 Hours 10.29 Feet / Hour

Total Drill Time = Average Penetration Rate =

None

Total Redrill Time = Average Penetration Rate =

o" N/S X o" E/W 23.75 24.63 Verticality Information
At Full Depth =

S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 229 Area "A"

		- Autoriting	Overbiedan		14.2%	
	Theoretical	1/-1-100	(CU.YD.)		21.0	
	Cher		(CU.YD.)		24	
L CONSTRUCTION	Non-Coo	MOI SPOR	Concrete			
WALL CONS			Grouf			
CUT-OFF WALL			Concrete	Caro	06/02/93	
		ate	Redrill 7	(UL) L)		
		Penetration H		ונון / חח	16.89	
			Redrill	CHE CHE		
		Pure Drill Time	Dill	(HHS)	5.33	
			Redrill	(FI)		
ATION	ATION		E-O	(FI)	06	
SEE WALLEYCAVI	THE WALL EACHY	14	Excavation	Method	DHD130A	
HIO		Equipment	Rig	*	_	
			Drilling	Date	06/05/93	1

Total Drill Time = Average Penetration Rate =

5.33 Hours 16.89 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

1.4" S X 1.77" W 24.63 30.56 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 230 Area "A"

	CIT	NEE WALL EXCAVA	HON						CUT-OFF V	VALL CONS	TRUCTION			
		WALL LAGAN			Ŀ			-			Non-Spec	Snec	Theoretical	
	Fortingen	-	Drill Footage		Pure Drill Ime		Penetration Hate				300		1	
		- Constitution	-	Bodrill	Drill	Redrill	Drill	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
Builling	Đ,	Excavalion	<u> </u>		(JDC)	HPC	(FT / HR)	EH/FE	Date	(CC, VD.)	(CU.YD.)	(CL.YD.)	(CU.VD.)	
Date	*	Memod			CULIN	2								
														1
00,00	(91,04304	5		1.00		7.80		01/30/93		22		21.3	27.1%
01/26/93	2	DHUSAN	5		3									
						1		4 4 4 4	00/00/00			76	210	% %
05/27/93	8	DHD130A		8		3.58		41.02	06/97/00			3	2	2000

Total Drill Time = Average Penetration Rate =

11.66 Hours 0.09 Feet / Hour

Total Redrill Time = Average Penetration Rate =

3.58 Hours 25.14 Feet / Hour

Verticality Information

1.5" S X 0" E/W

30.56 24.56 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments: Hole collapsed on 1/30/93

Primary Pile # 231 Area "A"

Total Drill Time = Average Penetration Rate =

6.00 Hours 15.00 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

o' N/S X o' E/W 24.56 24.46

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 232 Area "A"

	CIT-D	FF WALL EXCAVA	VIION						CUT-OFF W	VALL CONS	TRUCTION			
	-dilipinon	-	Drill Footage		Pure Drill Time		Penetration Rate	ıte			Non-Spec.	Spec.	Theoretical	
Drilling	Rig.	Excavation	唇	Redrill	Drill	Redrill	Drill (FT / HB)	Redrill (FT / HR)	Concrete	Grout (CU.YD.)	Concrete (CU.YD.)	Concrete (CU.YD.)	Volume (CU.YD.)	Overbreak
Date	#	Мешоа	(1.1)		2	2								
05/25/93	2	DHD130A	8		8.75		10.29		02/52/30			25.5	21.0	21.3%

8.75 Hours 10.29 Feet / Hour

Total Drill Time = Average Penetration Rate =

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

1.57"S X .5" W 24.46 28.90 At Full Depth =

S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 233 Area "A"

		Overbreak		9.4%	
	Theoretical	(CU.YD.)		21.0	
	Spec.	Concrete (CU YD.)		R	
TRUCTION	Non-Spec.	Concrete			
SUT-OFF WALL CONSTRUCTION		Grout			
CUT-OFF		Concrete	Name of the last	06/25/93	
		Redrill (FT / HD)	7		
	Penetration Rate		מטיז דיו	14.40	
		Redrill	(SUL)		
	Pure Drill Time	E S	2	6.25	
ŀ		Redrill	1		
ATION	Drift Footage		(<u>L</u>	8	
FF WALL EXCAVA		Excavation	Method	DHD130A	
C-TIT-O	Formon	Rig	#	2	
		Drilling	Date	06/24/93	

Total Drill Time = Average Penetration Rate =

6.25 Hours 14.40 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

0" N/S/ X 0" E/W 28.90 28.14 At Full Depth =

S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 234 Area "A"

	1	VET 14/41 EVC AV/A	TION						CUT-OFF V	VALL CO	NSTRUCTION			
	3	JEE WALL EXCAVE	1001								Man Onde	Choc	Theoretical	
	Editioned	Ť	Drill Footage		Pure Drill Time		Penetration Rate	Ite			NOT - Spec.	abar.	T COLUMN	
								100	-	+	Constant	Concrete	- Author	CVED TENEX
٥٠٠	2.0	Excavation		Redrill	5	Hedrill	5	Hedri	COLICIERE	100	od lording		100	
2	2		Ę	Ę	CODE	HPS	EH/FE	(HH)	Date	(CC.XD)	(CU.YU.)	(CU.YU.)	(50.10.)	
Date	*	Method			2	2								
			8		79 0		40.38		05/22/93			26.5	21.0	26.1%
05/21/93	2	DHD130A	36		0.07		3							

8.67 Hours 10.38 Feet / Hour

Total Drill Time = Average Penetration Rate =

Total Redrill Time = Average Penetration Rate =

Verticality Information

1" N X .75" W 28.14 25.29 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 235 Area "A"

	1	CE MAIL EVENAVA	MOIL						CUT-OFF	UT-OFF WALL CONSTRUCTION	TRUCTION			
	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		100		The state of the s						1000	0000	Theoretical	
	-cuinmen		Drill Footage		Pure Drill Time		Penetration Rate	le			MOII-Spec	andr.	THOOISING!	A
Drilling	Rig	Excavation	Drill	Redrill	E C	Redrill	Drill	Redrill	Concrete	Grout	Concrete	Concrete (CU,YD.)	(CU.YD.)	Overbreak
Date	*	Method	(FT)	Œ	(HRS)	(SHE)	ונו / טט	(LIV)	Caro	121.22				
06/04/93	-	DHD130A	6		6.50		13.85		06/02/93			24	21.0	14.2%

Total Drill Time = Average Penetration Rate =

6.50 Hours 13.85 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

0" N/S X 0" E/W 25.29 26.72 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 236 Area "A"

	CHT-C	JEF WALL EXCAVA	VIION						CUT-OFF WALL CONSTRUC	VALL CONS	TRUCTION			
	Equipmen	1	Drill Footage		Pure Drill Time		Penetration Rate	ı			Non-Spec.	Spec.	Theoretical	
Drilling	Ë	Excavation	Ouil	Redrill	Drill	Redrill	E C	Redrill	Concrete	Grout	Concrete	Concrete	emilion (C)	Cveroreak
Date	*	Method	Ē		(HRS)	(HRS)	(FT/HR)	(FT/HR)	Date	(CU.YD.)	(CU.YD.)	(CO:YO:)	(CO.TD.)	
05/18/93	2	DHD130A	8		7.75		11.61		05/18/93			72	21.0	28.5%

Total Drill Time =

7.75 Hours 11.61 Feet / Hour

Average Penetration Rate =

None Total Redrill Time = Average Penetration Rate ==

Verticality Information

0" N/S X 1.26" E 26.72 30.34 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 237 Area "A"

		Overbreak		14.2%	
	Theoretical	(CU.YD.)		21.0	
	Spec.	Concrete		24	
TRUCTION	Non-Spec.	Concrete			
CUT-OFF WALL CONSTRUCTION		Grout			
CUT-OFF		Concrete		05/26/93	
		Redrill (FT / HB)			
	Penetration Rate	Drill Orill		12.41	
		Redrill	2		
	Pure Drill Time		2	7.25	
		Hedrill Edrill			
ATION	Drill Footage			8	
FF WALL EXCAVA		Ã.	мешоа	DHD130A	
CUT-OF	Fauinment	Rig	*	8	
		Drilling	Date	05/26/93	

Total Drill Time = Average Penetration Rate =

7.25 Hours 12.41 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

2.78" N X 1" W 30.34 26.00

Verticality Information

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 238 Area "A"

		AVA OVE LEASE	MOIT						CUT-OFF V	WALL CONSTRUCTION	TRUCTION			
	200	JEE WALL EACAVA	201								Man Once	Spool	Theoretical	
	Company of	4.5	Drill Footage		Pure Drill Time		Penetration Rate	te			Non-Spec.	abar.	TI COLONG	
			-		-		-	2772	Comment	1	Operation C		SELIEN	
Drilling	ğ	Excavation	Ē	Redrill		Hedrill	5	Hedu	Conciere	185				
2	D :	1	Ę	Ę	HPS	HBS		EH/HB	Date	(CO.AD.)	(CU.YU.)	(.01.00)	(20.10.)	
Date	#	Metrod			200									
04/17/93	-	DHD130A	8		6.58		14.13		04/17/93			83	21.7	47.3%

Total Drill Time == Average Penetration Rate ==

6.58 Hours 14.13 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

2.28" N X 2.28" W 26.00 20.48

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 239

Area "A"

	1	Overbreak		11.7%	
	·-	(CU.YD.)		21.5	
	Spec.	Concrete (CU.YD.)		24	
L CONSTRUCTION	Non-Spec.	Concrete			
		Grout	12.12		
CUT-OFF WA		Concrete	Naio	05/11/93	
		Redrill	1 L		
	Penetration Rate	Drill	111	11.26	
		Redrill	QUE.		
	Pure Drill Time		(HES)	8.17	
		Redrill	Œ		
MOLE	Drill Footage	Drill	(FD	35	
EEWALL EYCAVA	11 4000	Excavation	Method	DHD130A	
+110		Rig	*	3	
		Drilling	Date	05/10/93	

Total Drill Time = Average Penetration Rate =

8.17 Hours 11.26 Feet / Hour

None Total Redrill Time = Average Penetration Rate =

Verticality Information

1.57" S X .78" E

20.48 28.21 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 240 Area "A"

CUT - OFF WALL EXCAVA I ION Pure Drill Trine Penetration Rate Rate of III Footset Penetration Rate Redrill Drill Redri	•		1110000	14014						CUT-OFF WA	_	L CONSTRUCTION			
Equipment Dnill Footage Pure Drill Time Pure Drill Time Peretration Rate Groundle (CU.YD.) Non-Spec. (Cu.YD.) Pure Drill (CU.YD.) # Method (FT) (HRS) (FT/HR)			FF WALL EXCAV	201									Case	Thornothio	
Equipment Excavation Drill Flag Redrill Flag Drill Flag Fedrill Flag FFT / HR)				Drill Footsce		_		Penetration Ra				Non-spec.	opar.	Metinal	June 4 C
Rig Excavation Drill Addition Headfill Lording (FT) LHRSJ (FT) (HRS) (FT)		Edulphieri		2000	Ī		Mi-P-C	11.0	Dodrill	Concrete	Grant	Concrete	Concrete	Volume	Contract
# Method (F1) (F1) (HRS) (F1/7 HZ) (Drilling	Rig	Excavation		Hedrill	5	III OCI I		(A) (A)	Date		(CO. AD.)	(CU.YD.)	(CU.YD.)	
3 2 DHD130A 46 3.50 13.14 62/03/93 12 30 30 30 30 30 30 30 30 30 30 30 30 30	Date	*	Method	Œ	(F)	(SHE	E L	מבו / ובו	111111111111111111111111111111111111111	Caro					
2 DHD130A 46 3.50 13.14 02/03/93 12 30 1 1.60 10.62 28.75 04/06/93 30														100	
1 DHD130A 92 46 4.33 1.60 10.62 28.75 04/06/93 30	00,00,00	C	DUDITOR	46		3.50		13.14		02/03/93		12		10.7	R/11
1 DHD130A 92 46 4.33 1.60 10.62 28.75 04/06/93 30	05/05/30	V	200	?											
1 DHD130A				8	76					_			8	21.5	39.6%
	04/06/93	-	DHD130A	25	Q		3								

Total Drill Time = Average Penetration Rate =

7.83 Hours 11.75 Feet / Hour

1.60 Hours 28.75 Feet / Hour

Total Redrill Time = Average Penetration Rate =

Verticality Information

.5" S X 1.05" E 28.21 29.88

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 241 Area "A"

		Joor	VE S			14.2%	
		Journand					
	Theoretical	1/-1-	ACCURATION	(CU.YD.)		21.0	
	Spies		Concrete	(CU.YD.)		24	
TRUCTION	Non-Spec	and cheer.	- Process	(CU.YD.)			
CUT-OFF WALL CONSTRUCTION			2				
CUT-OFF			Constrate	Conclete	Caro	05/14/93	
		- 1	HI-P-C		111111111111111111111111111111111111111		
		Penetration Hate			ונון / ונון	12.86	
				Redrill	(CHE)		
		Pure Drill Time			(Q)	7.00	
				Redrill	(FI)		
I TION	100	Drill Footage		E C	Œ	06	
AVA OVE	FF WALL EXCAVA			Excavation	Method	DHD130A	
	うしころ	morning		Rig	*	2	
				Drilling	Date	05/14/93	

Total Drill Time = Average Penetration Rate =

7.00 Hours 12.86 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

1.88" N X .94" W

At Full Depth = S-ARC North = S-ARC South =

23.21 23.21

Quality Coring: None.

Secondary Pile # 242 Area "A"

	CUT-O	FF WALL EXCAV	ATION						CUT-OFF V	VALL CONS	TRUCTION			
	Equipment		Drill Footage		Pure Drill Time		Penetration Rate				Non-Spec.	Spec.	Theoretical	
Drilling	Rig	Excavation	Orill	Redrill	Drill	Redrill	Drill	Redrill	Concrete		Concrete	Concrete	Volume	Overbreak
Date	*	Method	Œ	(F)	(HRS)	(HRS)	(FT / HR)	(FT / HR)	Date	(CU.YD.)	(CU:VD.)	(CU.YD.)	(CU.YD.)	
04/20/93	2	XL-24	88		4.34		21.43		04/20/93			33.5	21.7	54.3%

4.34 Hours 21.43 Feet / Hour

Total Drill Time = Average Penetration Rate =

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

0"N/S X 4.04"W 23.21 25.20 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 243 Area "A"

		Overbreak		14.2%
	Theoretical	Volume	(CU.YD.)	21.0
	Spec.	Concrete	(CU.YD.)	24
STRUCTION	Non-Spec.	Concrete	(CU.YD.)	
WALL CON		Grout	(CV.YD.)	
CUT-OFFW		Concrete	Date	05/28/93
	te	Redrill	(FT/HR)	
	Penetration Rate		(FT/HR)	25.14
	He.		(HRS)	
	Pure Drill Time	Drill	(HRS)	3.58
			Œ	
ATION	Drill Footage	Drill	Œ	06
FF WALL EXCAVA		Excavation	Method	DHD130A
cut-o	Equipment	Rig	*	2
		Drilling	Date	05/28/93

Total Drill Time = Average Penetration Rate =

3.58 Hours 25.14 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

1"S X 2"W At Full Depth = S-ARC North = S-ARC South =

25.20

Quality Coring: None.

Secondary Pile # 244 Area "A"

XX.	2UT-OFF WALL EXC gupment Rig Excavation # Method	CUT-OFF WALL CONSTRUCTION	Second Se		E C	(CU.YD.)		92 7.67 11.99 05/05/93 30 21.5 39.6%
E. 79 E 1 II	-OFF v	ATION	NO.	Drill Footage	Drill Radrill		(FI)	26

7.67 Hours 11.99 Feet / Hour

Total Drill Time = Average Penetration Rate =

Total Redrill Time = Average Penetration Rate =

Verticality Information

At Full Depth = S-ARC North = S-ARC South =

.5" N X .76" E 28.60 30.01

Quality Coring: None.

Comments:

Primary Pile # 245

Area "A"

	Spec		(CU YD.) (CU YD.)		25 21.0 19.0%	
CUT-OFF WALL CONSTRUCTION			Concrete Grout	1	05/21/93	
	100	1	Drill Redrill	(III)	10.79	
		ne ne	Orill Redrill	(HRS) (HRS)	8.34	
200		hill Footage	=	(FT) (F1) I	8	
OFF WALL EXCAVATION	- OLL WALL LAUVAIL	D	ă	Method	2 DHD130A	
1		HI.	1	Date #	05/20/93	

Total Drill Time = Average Penetration Rate =

8.34 Hours 10.79 Feet / Hour

Total Redrill Time = Average Penetration Rate ==

None

Verticality Information

3.14" N X 2.35" W 30.01 21.40 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 246 Area "A"

	TIV	SEE WALL EYCAVA	NOIT						CUT-OFF W	WALL CONSTRUCTION	TRUCTION			
		JI WALL LADAY	101								Man Coop	Case	Theoretive	
	Forman	10	Drill Footage		Pure Drill Time		Penetration Hate	9			NOI-Spec	300	illonoman.	
	3	111	-0					-			Commende	Constitution	Out To	- September 5
Drilling	Ric	Excavation	Drill	Redrill	5	Redrill	5	Hedrill	Concrete	ing s	COLCIER	CONCIDENT	91100	Vanion of the last
	2	No. of Control of Cont	Ę	Ę	HPS	HPS	EH/FB	FT/HB	Date	(CC.YO.)	(CU:YD:)	(CU.YD.)	(CU.VD.)	
Cate	#	Metro			2									
04/16/93	-	DHD130A	88		5.91		15.74		04/16/93			83	21.7	33.5%
						1								

5.91 Hours 15.74 Feet / Hour

Total Drill Time = Average Penetration Rate =

Total Redrill Time = Average Penetration Rate =

None

o" N/S X 2" E 21.40 26.03

Verticality Information
At Full Depth =
S-ARC North =
S-ARC South =

Quality Coring: None.

Comments: End of side grout stabilization test section.

Primary Pile # 247

Area "A"

Total Drill Time = Average Penetration Rate =

6.42 Hours 14.02 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

.5' S X 1.77' E 26.03 22.99 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 248 Area "A"

	CUT-0	JEF WALL EXCAVA	TION						CUT-OFF V	VALL CONS	TRUCTION			
	Equipmen	1	Drill Footage		Pure Drill Time		Penetration Rate				Non-Spec.	Spec.	Theoretical	
Drilling	Ŗ.	Excavation	Diel	Redrill	E C	Redrill	Drill	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
Date	*	Method	Œ	Œ	(HRS)	(HRS)	(FT / HR)	(FT / HR)	Date	(CU.YD.)	(CU.YD.)	(CU:VD:)	(CU:VD)	
02/02/93	2	DHD130A	9		8.80		10.34		02/10/93		9		21.3	-24.7%
												1	1	
04/08/93	2	DHD130A	8	9	0.17	3.50	11.76	8.8	04/09/93			88	21.7	28.3%

Total Drill Time =

Average Penetration Rate =

8.97 Hours 10.37 Feet / Hour

Total Redrill Time = Average Penetration Rate =

3.50 Hours 26.00 Feet / Hour

3"SX1.77"E 22.99 31.10 Verticality Information

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 249 Area "A"

14.2% Overbreak 21.0 Theoretical Volume (CU.YD.) 24 Spec. Concrete (CU.YD.) Non-Spec. Concrete (CU.YD.) CUT-OFF WALL CONSTRUCTION Grout (CU.YD.) 06/05/93 Concrete Date Redrill (FT / HR) 12.13 (FT/HB) Redrill (HRS) Pure Drill Time Drill (HRS) 7.42 Redrill (F) Drill Footage Drill (FT) 8 CUT-OFF WALL EXCAVATION Excavation **DHD130A** quipment Rig 06/05/93 Drilling Date

Total Drill Time = Average Penetration Rate =

7.42 Hours 12.13 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

.25" N X .76" E 31.10 19.13 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 250 Area "A"

CUT-OFF WALL CONSTRUCTION	Time Penetration Rate Theoretical Non-Spec. Spec.	Drill Redrill Concrete Grout Concrete Concrete	(HRS) (FT/HR) (FT/HR) Date (CU.YD.) (CU.YD.) (CU.YD.)	12.91 7.13 01/23/93 29 21.5 35.0%
CUT-OFF WAL		Concrete	Date	01/23/93
	n Rate	Drill Redrill	0	7.13
		Redrill	(HRS)	-
	Pure Drill Tim		_	12.9
	otage	Redrill	E	26
AVATION	Drill Fo	Dril	E	
UT-OFF WALL EXC	1	Excavation	Method	DHD130A
CUT-C	Equipmen	Rio	*	7
		Drilling	Date	01/20/93

Total Drill Time = Average Penetration Rate =

12.91 Hours 7.13 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

4.5" S X 0" E/W

19.13 29.11 At Full Depth = S-ARC North = S-ARC South = Quality Coring: NX/NQ cored to 97' on 7/15/93

Comments:

Primary Pile # 251 Area "A"

14.2% Overbreak 21.0 Theoretical Volume -(CU.YD.) 24 Spec. Concrete (CU.YD.) Non-Spec. Concrete (CU.YD.) CUT-OFF WALL CONSTRUCTION Grout (CU:YD.) 06/12/93 Concrete Date Redrill (FT / HR) 15.20 Drill (FT/HR) Redrill (HRS) Pure Drill Time Drill (HRS) 5,92 F Gdrill Drill Footage Drill (FT) 8 CUT-OFF WALL EXCAVATION Excavation **DHD130A** Equipment Rig 01/15/93 Drilling Date

5.92 Hours 15.20 Feet / Hour

Total Drill Time = Average Penetration Rate =

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

2.78" S X 0" E/W 29.11 26.24 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 252 Area "A"

	CUT-0	IFF WALL EXCAVA	TION						CUT-OFF V	VALL CONS	TRUCTION			
Ī	Fourinmen		Drill Footage		Pure Drill Time		Penetration Rate	1			Non-Spec.	Spec.	heoretical	
50	Bio	Excavation	Drill	Redrill	III.O	Redrill	Drill	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
Date	P #	Method	Œ	(FT)	(HRS)	(HRS)	(FT / HR)	(FT / HR)	Date	(CU:YD:)	(CU.YD.)	(cu.vo.)	(CO.VD.)	
1/25/93	2	DHD130A	36		8.07		11.40		01/27/93			28	21.5	30.3%
14/22/93	-	DHD130A		0	90.02	5.50	1860.00	0.00	04/23/94			24	21.7	10.5%

Total Drill Time =

8.12 Hours 22.78 Feet / Hour

Average Penetration Rate =

5.50

Total Redrill Time = Average Penetration Rate =

3.12"S X 1.12"W Verticality Information

26.24 30.79 At Full Depth = S-ARC North = S-ARC South = Quality Coring: This pile was cored on 1/25/93 but was not payed for because the pile was accidentally drilled again after coring was completed.

Comments: Pile was accidentally redrilled by contractor on 4/22/93

Primary Pile # 253

Area "A"

		Overbreak	16.6%
	Theoretical	(CU.YD.)	21.0
	Spec.	Concrete (CU.YD.)	24.5
TRUCTION	Non-Spec.	Concrete (CU.YD.)	
CUT-OFF WALL CONS		Grout (CU.YD.)	
CUT-OFF		Concrete	26/90/90
		Redrill (FT / HR)	
	Penetration Rate	Orill FT / HB	15.44
	6	Redrill	
	Pure Drill Time	Orill	5.83
		Redrill	
ATION	Drill Footage	E (06
FF WALL EXCAVA		Excavation	Memosa DHD130A
CUT-OF	Fauipment	Rig	2
		Drilling	Date 05/06/93

Total Drill Time = Average Penetration Rate =

5.83 Hours 15.44 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

0"N/S X 1" E 30.79 28.82 At Full Depth =

S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 254 Area "A"

	110	TELWALL EXCAV	ATION						CUT-OFF W	VALL CONS	TRUCTION			
		THE WALL EXCAN	1000				ŀ				Mon-Cook	Char	Theoretical	
	To the same of	*	I Drill Footbon		Pure Drill Time		Penetration Hate	9			NOT Spec.	3		
									-	4	Concrete	Constant	o Clino	
	Sig	Eventation	Diric	Redrill	- E	Redri	5	Heduil	Concrete	1005				
5	2	To the state of th	Ę	Ę	HDC	HBS)	(FT / HB)	EH/FE	Date	(CC:X2)	(CU.YD.)	(CO.YD.)	(CU.TD.)	
Date	*	Memod	(11)		2	2								
04/01/93	-	DHD130A	36		6.91		13.31		04/02/93			26.5	21.5	23.3%

Total Drill Time = Average Penetration Rate =

6.91 Hours 13.31 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

1.5" N X 0" E/W 28.82 27.44 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 255

Area "A"

	Non-Spec	indo indo	Addill Drill Redrill Concrete Grout Concrete Concrete Volume Oversitean	CLYD) (CLYD) (CLYD)	(FI/HK) (FI/HK) Care (CC: C.)		
		Pure Drill Time	Badrill	17.10	(HHS)	4.92	
MOIT		Drill Footage	Dodnill		(FT)	06	
IIT OFF WALL EXCAVA	O O O O O O O O O O O O O O O O O O O	uinmont.		Higherton	# Method	2 DHD130A	
	2	Č		Drilling	Date	06/28/93	

Total Drill Time = Average Penetration Rate =

4.92 Hours 18.29 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

2" N X .75" E 27.44 25.29 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 256 Area "A"

		T-OFF WALL EXCAVA	MION						CUT-OFF V	VALL CONS	CONSTRUCTION			
	Forting	-	Drill Footage		Pure Drill Time		Penetration Rate	ıte			Non-Spec.	Spec.	Theoretical	
Drilling	Bio	Excavation	Diil	Redrill	- To	Redrill	Drill	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
S ata	₽*	Method	E	Œ	(HRS)	(HRS)	(FT/HR)	(FT/HR)	Date	(CU:YD.)	(CU.YD.)	(CU.YD.)	(CU.YD.)	
200									00100			20	7	27 48
06/03/33	_	DHD130A	5		6.42		14.17		00/04/30			12	61.0	81.12

6.42 Hours 14.17 Feet / Hour

Total Drill Time = Average Penetration Rate =

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

1" N X 0" E/W 25.29 29.41 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 257 Area "A"

	1ON Drill Footage Crit (FT) (FT) 90	90 06
Pure Drill Time Penetration Rate Drill Redrill Prill Redrill (HRS) (FT / HR) (FT / HR) 4.92 18.29 18.29	Rage Pure Drill Time Penetration Rate Redrill Drill Drill (FT) (HRS) (HRS) (FT / HR) 90 4,92	CAVATION
I Time B Redrill B) (HRS) 4.92	Rage Redrill Drill Time Redrill (FT) (HRS) (HRS)	CAVATION
	eba 06	CAVATION Drill Footage Trill (F.)

Total Drill Time = Average Penetration Rate =

4.92 Hours 18.29 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

3" N X 1.78" E 29.41 23.90 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 258 Area "A"

_	1	CE WALL EYCAVA	MOIT						CUT-OFF V	VALL CONS	TRUCTION			
	0100	THE WALL EACHY									- C	3000	Thousand	
	-ditionen		Drill Footage		Pure Drill Time		Penetration Rate				Non-spec.	3000	I ECHERCE	
Drilling	Rio	Excavation	Drill	Redrill	Die	Redrill		Redrill	Concrete	Grout	Concrete	Concrete	Volume	Cverbreak
Date	*	Method	Œ	E	(HRS)	(HRS)	(FT/HR)	(FT/HR)	Date	(CU.YD.)	(CU.YU.)	(CU.TU.)	(CO. TD.)	
06/10/93	-	DHD130A	8		5.75		15.65		06/11/93			31.5	21.0	49.9%

5.75 Hours 15.65 Feet / Hour

Total Drill Time = Average Penetration Rate =

None

Total Redrill Time = Average Penetration Rate =

1.15" N X O' E/W At Full Depth = Verticality Information

23.90 30.96 S-ARC North = S-ARC South =

Quality Coring: NX/NQ cored to 93.3' on 07/08/93.

Comments:

Primary Pile # 259 Area "A"

		Orothrook	NEGO PAR		14.2%	
	_	_	(CU.YD.)		21.0	
	Spec.	Comments	(CU YD)		24	
TRUCTION	Non-Spec.	-	Concrete			
CUT-OFF WALL CONSTRUCTION						
CUT-OFF			Concrete	Caro	06/30/33	
	ote		Hedrill T	- CO / LO		
	Denetration Rate	10000000		ונו / נונה	13.85	
			Redrill	CHES		
	Description On It Time			Q E	6.50	
			Redrill	(FD)		
ATION	2.10		Drill	(FI)	06	
EF WALL EXCAVA			Excavation	Method	DHD130A	
CITT-O	3	-duromen	Rig	*	2	
_			Drilling	Date	06/30/93	

Total Drill Time = Average Penetration Rate =

6.50 Hours 13.85 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

4.30" N X 0" E/W 30.96 18.04 At Full Depth =

S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 260 Area "A"

		Overbreak		35.6%
	Theoretical	Volume	(CU.VD.)	21.0
	Spec.	Concrete	(CU.VD.)	28.5
STRUCTION	Non-Spec.	Concrete	(CU.YD.)	
CUT-OFF WALL CONSTRUCTION		Grout	(CU.YD.)	
CUT-OFF\		Concrete	Date	06/14/93
	9	Redrill	(FT / HR)	
	Penetration Rat		(FT / HR)	1241
		Redrill	(HRS)	
	Pure Drill Time	Oril	(HRS)	7.25
		Redrill	Œ	
VIION	Drill Footage	Diil	Œ	06
FF WALL EXCAVA		Excavation	Method	DHD130A
CUT-O	Equipment	Rid	°*	-
		Drilling	Date	06/12/93

Total Drill Time = Average Penetration Rate =

7.25 Hours 12.41 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

Verticality Information
At Full Depth =
S-ARC North =
S-ARC South =

1" S X 1.26" E 18.04 31.65

Quality Coring: None.

Comments:

Primary Pile # 261 Area "A"

		Overbreak		28.5%
	Theoretical	Volume	(CU.YD.)	21.0
	Spec	Concrete	(CU.YD.)	27
STRUCTION	Non-Spec.	Concrete	(CU.YD.)	
CUT-OFF WALL CONSTRUCTION		Grout	(CU:YD:)	
CUT-OFF \		Concrete	Date	06/28/93
	ite	Redrill	(FT / HR)	
	Penetration Ra	Diil	(FT / HR)	14.20
		Redrill	(HRS)	
	Pure Drill Time	Drill	(HRS)	6.34
		Redrill	Œ	
VLION	Drill Footage	Drill	E	06
FF WALL EXCAVA	1	Excavation	Method	DHD130A
CUT-0	Equipment	Big	*	2
		Drilling	Date	06/56/93

Total Drill Time = Average Penetration Rate =

6.34 Hours 14.20 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

3"NX2.25"W 31.65 22.19 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 262 Area "A"

		Overbreak		52.3%	
		(CU.YD.)		21.0	
	Spec	Concrete (CU.YD.)		38	
STRUCTION	Non-Spec.	Concrete (CU.YD.)			
CUT-OFF WALL CONSTRUCTION		Grout (CU.YD.)			
CUT-OFF		Concrete		06/05/93	
	ute	Redrill (FT / HR)			
	Penetration Rate	Drill (FT / HR)		11.61	
		Redrill	2		
	Pure Drill Time		2	7.75	
		Redrill			
MOIL	Drill Footage			8	
FF WALL EXCAVA	*	Excavation	Memod	DHD130A	
	- during	Rig	*	-	
		Drilling	Date	06/02/93	

Total Drill Time = Average Penetration Rate =

7.75 Hours 11.61 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

0"N/S X 1.52"W 22.19 30.37 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 263

Area "A"

		Overbreak	14.2%
	Theoretical	(CU.YD.)	21.0
	Spec.	Concrete (CU.YD.)	24
TRUCTION	Non-Spec.	Concrete (CU.YD.)	
T-OFF WALL CONSTRUCTION		Grout (CU:YD.)	
CUT-OFF		Concrete	06/18/93
	ate	Redrill (FT / HR)	
	Penetration Rate	Drill (FT / HR)	20.00
		Redrill	
	Pure Drill Time	Drill	4.50
		Redrill	
MOIL	Drill Footage	<u>E</u>	(1.1)
IT-OFF WALL EXCAVA	-	ā.	Method DHD130A
CITTO	Forting	Rig	*
		Drilling	Date 06/18/93

Total Drill Time = Average Penetration Rate ==

4.50 Hours 20.00 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

2.78" N.X.51" E 30.37 22.56 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 264 Area "A"

	1110	CE WALL EYCAVA	NOIL						CUT-OFF V	WALL CONS	TRUCTION			
		THE WALL LADAY	1011		4						Alon Coor	Sner	Theoretical	
	-dilinmen		Drill Footsde		Pure Drill I me		Penetration Hate				300		-	
1	3		į	Dodrill	lii.C	Redrill	Drill	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Cveroreax
Dulling	Ď	Excavalion	Ē (Ę		1000	(ET / ND)	GH/ LJ/	Date		(CLI YD.)	(CU:YD:)	(CV.YD.)	
Date	*	Method			(CHL)	2				1				
													1	
00/00/00	C	DHD130A	75		6.58		11.40		02/03/93		2		17.5	19.9%
02/02/30	ų.		?											
			-	70	•	27.0	10.68	200	04/01/93			28.5	21.7	88
04/20/93	-	DHD130A	3	0	74.	2			2011					

Total Drill Time =

8.00 Hours 11.63 Feet / Hour

Average Penetration Rate =

Total Redrill Time = Average Penetration Rate =

0.75 Hours 100.00 Feet / Hour

Verticality Information

O'N/S X O'E/W

22.56 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: 6" Joint core 264/265; 30.9' deep on 9/24/93

Comments:

Primary Pile # 265

Area "A"

		AVACAUL DVCAVA	TOK.						ICUT-OFF WALL CONSTRU	VALL CONS	TRUCTION			
		JEF WALL EACAVA	100								Č	-0	Theoremical	
	Forting	14	Drill Footage		Pure Drill Time		Penetration Rate				Non-spec.	spec.	neoretical	A A A
Drilling	200	Excavation	Drill	Redrill	Drill	Redrill	Drill	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Cverpreak
940	2 *	Method	<u></u>		HRS	(HRS)	(FT/HB)	(FT/HB)	Date	(CU.VD.)	(CU.YD.)	(CU.VD.)	(CU.VD.)	
Caro														
02/56/93	8	DHD130A	8		6.92		13.01		06/27/93			24	21.0	14.2%

Total Drill Time = Average Penetration Rate =

6.92 Hours 13.01 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

1.14" N X O' E/W At Full Depth = Verticality Information

28.34 S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 266

Area "A"

			Overbreak		51.4%	
	Theoretical		(CU.YD.)		21.1	
	Snec	100	COLYD.)		83	
FRUCTION	Mon-Spec	2000	Concrete			
I-OFF WALL CONSTRUC			Grout			
CUT-OFF V			Concrete	Dano	01/30/93	
		- 1	Redrill FT / HD)	(1117)		
		Penetration Hate		ונו / ונו	14.69	
			Redrill	CHUS		
	Ľ	Pure Unil I me		(SHE)	6.16	
			Redrill	(F1)		
MOIT		Drill Footage	喜	(FI)	90.5	
CE WALL EYCAVI	TE VACE LAURA		ğ	Method	DHD130A	
TI	2	Fortinment	Rig	*	0	
			Drilling	Date	01/29/93	

6.16 Hours 14.69 Feet / Hour

Total Drill Time = Average Penetration Rate =

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

1.25" S X 1" W 23.17 30.84 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 267 Area "A"

T					
		Overbreak		14.2%	
	heoretical	(CU.YD.)		21.0	
	. Sp.	Concrete (CU.YD.)		24	
HUCITON	Non-Spec.	Concrete (CU.YD.)			
CUT-OFF WALL CONSTRUCTION		Grout (CU YD.)			
CUT-OFF \		Concrete		05/18/93	
	_	Redrill (FT / HR)			
	Penetration Rate	Drill (FT / HB)		10.59	
		Redrill	200		
	Pure Drill Time	Drill	2	8.50	
		Redrill			
ATION	Drill Footage	E	(1)	06	1
F WALL EXCAV.		Excavation	Method	DHD130A	
CLIT-0	-duninnen	Rig	*	2	
		Drilling	Date	05/18/93	

Total Drill Time = Average Penetration Rate =

8.50 Hours 10.59 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

1.83" N X 2.09" W 30.84 23.94 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 268 Area "A"

35.8% Overbreak 21.7 Theoretical Volume (CU.YD.) 29.5 Spec. Concrete (CU.YD.) CUT-OFF WALL CONSTRUCTION
Concrete Grout Concrete
Date (CU.YD.) (CU.YD.) 04/07/93 Redrill (FT / HR) enetration Rate 15.50 Drill (FT / HR) Redrill (HRS) Oure Drill Time Drill (HRS) 6.00 Redrill (FT) Drill Footage Drill (FT) 8 Excavation DHD130A Equipment Rig 8 04/06/93 Drilling Date

Total Drill Time = Average Penetration Rate =

6.00 Hours 15.50 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

0" N/S X 0" E/W 23.94 26.73

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 269

Area "A"

CUT-OFF WALL CONSTRUCTION	None Conce	Penetration Hate	Redrill Drill Redrill Concrete Grout Concrete Concrete Volume Overbream		6.92 13.01 05/11/93 24 21.0 14.2%	
OFF WALL CON				┞	11/93	
-TUOI		٦		╫	8	
		Hate		-	13.01	
			Redrill	2 L		
		Pure Drill Time		(CHL)	6.92	
			Hedrill (8	
ATION	1000	Drill Footag	喜		6	
EVANAL EYCAV	יייייייייייייייייייייייייייייייייייייי		Excavation	Method	DHD130A	
110		Equipment	Rig	*	8	
			Drilling	Date	05/11/93	

Total Drill Time ==
Average Penetration Rate ==

6.92 Hours 13.01 Feet / Hour

None

Total Redrill Time == Average Penetration Rate ==

Verticality Information

0"N/S X 1"E 26.73 26.76 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 270 Area "A"

	TIN	SEE MAIL EYCAVA	MOIT						CUT-OFF V	VALL CONS	TRUCTION			
		JET WALL LAUDER	2012		- 61						Mon-Snor	Spec	Theoretical	
	Fortimen	4	Drill Footage		Pure Drill Time		Penetration Hate	alle.			Mail Space	2		
1	2000		-		===	Radrill	- Fi-C	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Cverbreak
Drilling	D T	EXCAVATION	5 (1007	(dn/tu	(dH/ LJ/	Pate		(CU.YD.)	(CU.YD.)	(CU:YD:)	
Date	*	Method	(F)	Ē	Z L	211			Caro	1000				
00/04/03	·	DHD130A	4		2.33		18.88		02/05/93		5		10.3	% %
26/15/20	J													
			8	**	707	000	800	2000	04/16/93			8	21.7	38.1%
04/15/93		DHD130A	33	\$	D	3								

Total Drill Time =

7.24 Hours 12.85 Feet / Hour

Average Penetration Rate =

2.00 Hours 22.00 Feet / Hour

Total Redrill Time = Average Penetration Rate =

Verticality Information

0"N/S X 1.5"E 26.76 28.55

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 271

Area "A"

		James	Venuidan		14.2%	
	Theoretical	_		20.10.	21.0	
	Spec.	-	Coliciere	יחויים אין	24	
L CONSTRUCTION	Non-Spec.		Concrete	ויחז.טאן		
⋖		•	Grout	(00.10)		
CUT-OFF W			Concrete	Date	05/15/93	
	ate.	-	Redrill	(FI / HB)		
	Donotration Rate	o lettation i	Origina	(FT/HB)	10.49	
			Redrill	(HRS)		
	Ŀ	Lue Cilli IIIIe	Ē	(HRS)	8.58	
			Redrill	E		
ATION		Unii rootage	Drill	Œ	06	
FF WALL FXCAVE	White Court	-	Excavation	Method	DHD130A	
CITTOF		Edutomen	Rig	*	2	
			Drilling	Date	05/14/93	

Total Drill Time = Average Penetration Rate =

8.58 Hours 10.49 Feet / Hour

Total Redrill Time == Average Penetration Rate ==

None

Verticality Information

1.31" N X 2.22" E 28.55 23.70

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 272 Area "A"

	1	AVA OVT TIME	MOIL						CUT-OFF WALL CONSTRUC	VALL CONS	TRUCTION			
	2 - 53	JEE WALL EACAVE	NOIL	-								Ł	Theoprotice	
	Fortimer	J.	Drill Footage		Pure Drill Time		Penetration Rate				Non-spec.		I I I I I I I I I I I I I I I I I I I	A section of
Drilling	Rid	Excavation	Orill	Redrill	Drill	Redrill		Redrill	Concrete	Grout	Concrete	Concrete	Noting (CV IV)	Cverbreak
Date	*	Method	Œ	(FI)	(HRS)	(HRS)	(F1 / HH)	(FI / HR)	Date	- H	20.10.	H		
04/09/93	-	DHD130A	93		7.00		13.29		04/09/93			ਲ	21.7	56.6%

Total Drill Time = Average Penetration Rate =

7.00 Hours 13.29 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

.76" S X 2" E 23.70 25.27 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 273 Area "A"

16.6% Overbreak 21.0 Theoretical Volume (CU.YD.) 24.5 Spec. Concrete (CU.YD.) CUT-OFF WALL CONSTRUCTION
Concrete Grout Concrete
Date (CU.YD.) (CU.YD.) 05/25/93 Concrete Date Redrill (FT / HR) Penetration Rate Drill (FT / HR) 10.38 Redrill (HRS) Drill Time Drill (HRS) 8.67 Drill Footage Drill (FT) 8 CUT-OFF WALL EXCAV. Excavation Method DHD130A Equipment Rig 05/24/93 Drilling Date

Total Drill Time = Average Penetration Rate =

8.67 Hours 10.38 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

1.77" S X 1" E 25.27 31.89 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 274 Area "A"

UT-OFF WALL EXCAVATION	WALL CONSTRUCTION	Non-Spec. Spec. Ineoretical	Grout Concrete Concrete Volume Overpreak
FF WALL EXCAVATION t Drill Footage Pure Drill Time Penetration Rate Excavation Drill Redrill Drill Drill Drill (FT) (HRS) (FT / HR) (FT / HR)	CUT-OFF V		Concrete
FF WALL EXCAVATION t Drill Footage Pure Drill Time Penetral Excavation Drill Redrill Drill Drill Drill Method (FT) (FT) (HRS) (FT / I		on Rate	
FF WALL EXCAVATION t Drill Footage Pure Drill Time t Excavation Drill Aedrill Drill Method (FT) (FT) (HRS)		Penetratio	
FF WALL EXCAVATION t			
FF WALL EXCAVATIO		306	
4 1 ×	AVATION	Drill Foots	Drill
	OFF WALL EXCA	ant	_

Total Drill Time = Average Penetration Rate =

3.92 Hours 23.72 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

2.25" N X 1.5" W 31.89 22.14

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 275

Area "A"

CUT-OFF WALL CONSTRUCTION	Suec	Mail open.	Grout Concrete Concrete Volume Overbream		25 21.0 19.0%	
CUT-OFF WAL			Concrete	-	05/21/93	
		enetration Hate	Drill Redrill	-	11.03	
		rill Time	Redrill		8.16	
		Pure Drill	Redrill	1		
MICH	1011	Drill Footage	Drill	(FI)	66	
VEC WALL EYCAVA	ALL MALL LADAY	-	ũ	Method	DHD130A	
C HIC	100	Fortimen	Drilling Rig	Date #	05/21/93	

Total Drill Time = Average Penetration Rate =

8.16 Hours 11.03 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

.76"S X 1"W 22.14 27.75 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 276 Area "A"

	CUT-0	IFF WALL EXCAVA	ATION						CUT-OFF \	WALL CONS	CONSTRUCTION			
	Fourthern		Drill Footage		Pure Drill Time		Penetration Rai	te			Non-Spec.	Spec.	Theoretical	
Drilling	Ria	Excavation	IIIO	Redrill	ii.	Redrill	Dill	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
Date	*	Method	Œ	E	E RS	(HRS)	(FT/HR)	(FT / HR)	Date	(CU.YD.)	(CU:VD:)	(CU.YD.)	(CU.YD.)	
05/28/93	2	DHD130A	8		5.58		16.13		05/28/93			24.5	21.0	16.6%

Total Drill Time = Average Penetration Rate =

5.58 Hours 16.13 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

0" N/S X .5" E 27.75 30.91 At Full Depth =

S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 277 Area "A"

Overbreak 21.7 heoretical Volume (CU.YD.) 8 Spec. Concrete (CU.YD.) NSTRUCTION
Non-Spec.
Concrete
(CU.YD.) Grout (CU.YD.) 04/23/93 Concrete Date Redrill (FT / HR) Penetration Rate Drill (FT / HR) 11.16 Redrill (HRS) Pure Drill Time Drill (HRS) 8.33 Redrill (FT) Drill Footage Drill (FT) 8 Equipment Drill Fe Equipment Drill Fe Equipment Drill Fe Equipment Fig Excavation Drill Fe Equipment Fig Excavation Drill Fe Equipment Drill Fe Eq Excavation DHD130A 04/23/93 Drilling Date

52.0%

Total Drill Time = Average Penetration Rate =

8.33 Hours 11.16 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

3.5" N X 3.5" W 30.91 17.62 At Full Depth =

S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 278 Area "A"

		Overbreak	26.1%
	Theoretical	Volume (CU.YD.)	21.0
	Spec.	Concrete (CU.YD.)	26.5
STRUCTION	Non-Spec.	Concrete (CU.YD.)	
CUT-OFF WALL CONSTRUCTION		Grout (CU.YD.)	
CUT-OFF		Concrete	06/04/93
		Redrill (FT / HR)	
	Penetration Rate	Orill (FT / HR)	14.80
	6	Redrill	
	Pure Drill Time	Drill	90.9
		Redrill	
ATION	Drill Footage		80
DEF WALL EXCAVA	+	Excavation	DHD130A
CITT	Forting	Rig	*
		Drilling	Date 06/04/93

Total Drill Time = Average Penetration Rate =

6.08 Hours 14.80 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

2"S X 2.5" W 17.62 28.69 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 279

Area "A"

		Overbreak	23.7%	
	Theoretical	CU.YD.)	21.0	
	Spec.	Concrete (CU.YD.)	98	
TRUCTION	Non-Spec.	Concrete		
CUT-OFF WALL CONSTRUCTION		Grout		
CUT-OFF		Corncrete	07/01/93	
	n Rate	Redrill (FT / HB)		
	Penetration R	Orill Orill	11.61	
	0	Redrill		
	Pure Drill Time	E G	7.75	
		Redrill		
ATION	Drill Footage		8	
FF WALL EXCAV		Excavation	Memod	
CUT-0	Fallinmen	Rig	*	
		Drilling	Date	6/10/10

Total Drill Time = Average Penetration Rate =

7.75 Hours 11.61 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

.25" S X 1.5" E 28.69 24.09 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 280 Area "A"

	1110	FEMALL EVENAVA	TION						CUT-OFF V	VALL CONS	TRUCTION			
	2 - 20	THE MALL EXCAVA	NOIL								Mer Cane	Chan	Thornother	
	Follinmen		Drill Footage		Pure Drill Time		Penetration Hate	- 1			NOT - SPEC	200		Austral.
Drilling	Bio	Excavation	Drill	Redrill	Drill	Redrill	Drill	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Cventreak
Date	*	Method	<u>E</u>	Œ	(HRS)	HRS)	(FT/HR)	(FI/HR)	Date	(CO.YD.)	(CU.YU.)	(70.10.)	(70.10.)	
													-	
00/04/03	0	DHD130A	8		1.75		19.43		02/02/33		80		7.9	0.8%
2000	1											8	5) N
06/15/93	+	DHD130A	16	ਲ	4.41	1.42	12.93	23.92	06/15/93			Ŋ	21.0	30.0%
20/21/20														

6.16 Hours 14.77 Feet / Hour

Total Drill Time = Average Penetration Rate =

1.42 Hours 23.94 Feet / Hour

Total Redrill Time = Average Penetration Rate =

Verticality Information

1.88" S X 1.6" W

24.09 29.12 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 281 Area "A"

	Non-Spec. Theoretical		(CU.YD.) (CU.YD.) (CU.YD.)		24 21.0 14.2%	
CUT-OFF WALL CONSTRUCTION		_	Concrete Grout	-	07/06/93	
0	Doto	Land	Redrill (FT / HB)	1	14.80	
	Donoston	Leienano		1	4	
	Ľ	III IIII	III Redrill	-	6.08	
	4	Tare DI				
2		Footage	Drill Redrill	(FI)	.	
IT OFF WALL EXCAVATION	TOTAL CONTRACTOR	5	Ŋ.	Method	DHD130A	
TILO	5	Foundation	Rig	*	2	
			Drilling	Date	07/05/93	

Total Drill Time = Average Penetration Rate =

6.08 Hours 14.80 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

0" N/S X 1" E 29.12 27.28 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 282 Area "A"

	CIIT-O	JEF WALL EXCAVA	TION						CUT-OFF V	VALL CONS	TRUCTION			
	Fauromen	<u> </u>	Drill Footage		Pure Drill Time		Penetration Rat	9			Non-Spec.	Spec.	Theoretical	
Drilling	Ę.	Excavation	E	Redrill	Drill	Redrill	Orill (FT / HR)	Redrill (FT / HR)	Concrete	Grout (CU.YD.)	Concrete (CU.YD.)	Concrete (CU.YD.)	Volume (CU,YD,)	Overbreak
Date	*	DHD130A	6		5.50		16.36		06/02/93			8	21.0	52.3%
or look														

5.50 Hours 16.36 Feet / Hour

Total Drill Time = Average Penetration Rate =

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

At Full Depth = S-ARC North = S-ARC South =

.5' N X 1.5' W 27.28 27.90

Quality Coring: None.

Comments:

Primary Pile # 283 Area "A"

		Overbreak		9.4%
	Theoretical		(CU.YD.)	21.0
	Spec.	Concrete	(CU:VD)	83
STRUCTION	Non-Spec.	Concrete	(CU.YD.)	
SUT-OFF WALL CONSTRUCTION		Grout	(CV.YD.)	
CUT-OFF		Concrete	Date	07/22/93
	ite	Redrill	(FT / HR)	
	Penetration Rate	Ē	(FT / HR)	18.63
		Redrill	(HRS)	
	Pure Drill Time	Orill	(HRS)	4.83
		Redrill	Œ	
VION	Drill Footage	Dill	(H	8
FF WALL EXCAVA		Excavation	Method	DHD130A
CUT-O	Equipment	Rid) * 	2
		Drilling	Date	07/21/93

Total Drill Time = Average Penetration Rate =

4.83 Hours 18.63 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

1.5" N X 1.5" E 27.90 25.30 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 284 Area "A"

	TIL	NEE WALL EXCAVA	NOIT					۲	CUT-OFF V	VALL CONS	TRUCTION			
	3	יייייייייייייייייייייייייייייייייייייי	Drill Ecotogo		Pure Drill Time		Penetration Rate				Non-Spec.	Spec.	Theoretical	
										•			Vetime	Sample of the sample
	0.0	Evenation	100	Redrill	FO	Redrill	2	Hedrill	Concrete	Grout	Concrete	Concrete	Volume	CVERDIGER
2	2	1	Ę	Ę	HDC	HPS	FT / HB	EH/HB	Date	(CC.YD.)	(CV.YD.)	(CU:VD)	(CU.YD.)	
Cate	#	Metriod			2	200			1					
									_					
00,000		4304	2		07.0		23.33		01/29/93	-	21.5		14.7	46.1%
01/20/32	V	_	3		i									
						1	•	-	00,000,00			8	21.0	20.70
06/23/93	-	DHD130A	8	S	2.43	2.92	11.11	82.73	06/23/33			3	2	60.1.03

Total Drill Time = Average Penetration Rate =

5.13 Hours 17.54 Feet / Hour

Total Redrill Time = Average Penetration Rate =

2.92 Hours 21.58 Feet / Hour

Verticality Information

.5" N X 1" E 25.30 29.42

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 285

Area "A"

		Overbreak	14.2%
	Theoretical	(CU.YD.)	21.0
	Spec.	Concrete (CU.YD.)	24
TRUCTION	Non-Spec.	Concrete (CU.YD.)	
CUT-OFF WALL CONSTRUCTION		Grout (CU.YD.)	
ICUT-OFF		Concrete	07/06/93
		Redrill (FT / HB)	
	Penetration Rate	Drill PH / FF)	16.89
		Redrill	
	Pure Drill Time	Drill	5.33
		Redrill	
VIION	Drill Footage	<u></u>	8
-OFF WALL EXCAVA		Excavation	Method DHD130A
0-11-0	For imment	Rig	2
		Drilling	Date 07/05/93

Total Drill Time = Average Penetration Rate =

5.33 Hours 16.89 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

2.5" N X .5" W 29.42 24.13 At Full Depth = S-ARC North = S-ARC South = Verticality Information

Quality Coring: None.

Secondary Pile # 286 Area "A"

		(CU.YD.)		21.0 54.6%	
	Spec.	(CU.YD.)		32.5	
CONSTRUCTION	Non-Spec.	Concrete (CU.YD.)			
WALL CONS		Grout			-
CUT-OFF		Concrete		06/10/93	
	ıte	Redrill FT / HR)			-
	Penetration Ra	Drill FT / HB	7.11	13.68	
		Redrill	2		
	Pure Drill Time	Drill	CUL	6.58	
		Redrill	(L)		
NOIL	Drill Footage	100	(F)	86	
FE WALL EXCAVA	1	Excavation	Method	DHD130A	
TIJO	Falling	Rig	*	3	
		Drilling	Date	06/10/93	

6.58 Hours 13.68 Feet / Hour

Total Drill Time = Average Penetration Rate =

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

.76" N X 1.75" W 24.13 27.11

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 287 Area "A"

		2	¥		9.4%	
			Overbreak			
	Theoretical	i i i i i i i i i i i i i i i i i i i	(CU.YD.)		21.0	
	0000	onec.	Concrete (CU.YD.)		23	
WALL CONSTRUCTION	Total Control	Non-spec.	Concrete			
WALL CONS			Grout	100		
CUT-OFF V			Concrete	Caro	07/01/93	
		1	Redrill (T. / HB)	(1117)		
		Penetration Rate		ULI / L.	18.00	
			Redrill	CUL		
		Pure Drill Time		QUE.	5.00	
			Redrill	1		
ATION	101	Drill Footage		(FI)	06	
EE WALL EVOAVA	TH WALL EACH	14	Excavation	Method	DHD130A	
1	200	-oniomen	Rig	*	2	
			Drilling	Date	07/01/93	

Total Drill Time = Average Penetration Rate =

5.00 Hours 18.00 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

1" N X 1.25" W 27.11 22.96 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 288 Area "A"

	Spec. Theoretical	(CU,YD.) (CU,YD.) (CU,YD.)	L	31.5 21.0 49.9%
CUT-OFF WALL CONSTRUCTION		Grout (CU.YD.)		2
CUT-OF		Concrete		06/14/93
		Redrill FT / HB		
	Penetration Rate	Orill (FT / HR)		14.80
		Redrill	2	
	Pure Drill Time		2	6.08
		Redrill		
ATION	Drill Footage			06
T-OFF WALL FXCAVA		Excavation	Memod	DHD130A
O-TIO	Following	Rig	*	+
		Drilling	Cate	06/14/93

Total Drill Time = Average Penetration Rate =

6.08 Hours 14.80 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

1.5" S X 1.75" W 22.96 30.73

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 289 Area "A"

14.2% Overbreak 21.0 heoretical Volume (CU.YD.) 24 Spec. Concrete (CU.YD.) CUT-OFF WALL CONSTRUCTION
Concrete Grout Concrete
Date (CU,YD.) (CU,YD.) 07/22/93 Redrill (FT / HR) enetration Rate 17.68 FT/HB Redrill (HRS) Pure Drill Time Drill (HRS) 5.09 Fed Fed Drill Footage Drill (FT) 8 CUT-OFF WALL EXCAVATION Excavation Method **DHD130A** -quipment Rig N 07/22/93 Drilling Date

Total Drill Time = Average Penetration Rate =

5.09 Hours 17.68 Feet / Hour

None Total Redrill Time = Average Penetration Rate =

Verticality Information

1.5" N X 0" E/W 30.73 27.37

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 290 Area "A"

Drill Footage	TIC	E WALL EXCAVA	TION						CUT-OFF V	VALL CONS	TRUCTION			
Equipment Drill Footage Pure Drill Time Ped III	5	L WALL LACAN	101								Alone Cross	Chor	Theoretical	
Fig.	Formont		Drill Footage		_		Penetration Hate	9			NOT SPEC.	3000	The contract	
Hig Excavation (FT) (FT) (HRS)	3		III-C	Dodrill	11111	Redrill	Drill	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
# Method (F1) (F1) (F1) (F13)	§	Excavation	5 (1000	(App.)	FT / HB	(FT / HR)	Pate	(Cr. XD)	(CU:YD:)	(CU.YD.)	(CU:YD:)	
2 DHD130A 41 2.58	*	Method			CHU	2				+				
2 DHD130A 41 258														
4.27 4.27		DHD130A	41		2.58		15.89		02/03/93		13		9.6	35.8%
41 4.21		200			ì									
4.21 4.1 APD-130A				;	3	4 4		00 00	06/10/00			8	21.0	33.2%
	<u>8</u>	DHD130A	86	4	4.21	9.	\$		8/8/8			3		

6.79 Hours 13.25 Feet / Hour

Total Drill Time = Average Penetration Rate =

Total Redrill Time = Average Penetration Rate =

1.46 Hours 28.08 Feet / Hour

Verticality Information

2" N X 1.77" W 27.37 23.68

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 291 Area "A"

			Cverbreak		16.6%	
-	howatica		Volume	77.77	21.0	
	Spoo	3000	Concrete	70.10.	24.5	
STRUCTION	Alon Coop	Mail Space	Concrete	CO.TO.)		
SUT-OFF WALL CONSTRUCTION			Grout	(CU.TU.)		
CUT-OFF			Concrete	Date	07/23/94	
		ate	Redrill	(FI / HH)		
		Penetration H	Drill	(FI / HR)	18.29	
			Redrill	(HRS)		
		Pure Drill Time	Drill	(HRS)	4.92	
			Redrill	٥		
NOIL		Drill Footage	Drill	<u>E</u>	8	
FE WALL EXCAVA	THE PROPERTY OF THE	_	Excavation	Method	DHD130A	
		COLLEGIO	Rig	*	2	
			Drilling	Date	07/23/93	

Total Drill Time = Average Penetration Rate =

4.92 Hours 18.29 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

0" N/S X 0" E/W 23.68 26.61 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 292

	CUT-O	FF WALL EXCAVA	ATION						CUT-OFF WALL C	ALL CONSTF	TRUCTION			
	Fouriernent		Drill Footage		Pure Drill Time		Penetration Rate				Non-Spec.	Spec.	Theoretical	,
Drilling	Hig	Щ.	Ē (Redrill	Drill	Redrill	Drill (51 / 10)	Redrill FT / HB	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
Date	*	Memod	L		(SUL)	200	ALL LIN		Date	100.100	20.00			
06/16/93	-	DHD130A	8		06.90		13.04		06/16/93			8	21.0	52.3%

Total Drill Time =

6.90 Hours 13.04 Feet / Hour

Average Penetration Rate =

Total Redrill Time = Average Penetration Rate =

Verticality Information

0"N/S X 2.28"W 26.61 28.73 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 293 Area "A"

14.2% Overbreak 21.0 Pheoretical Volume (CU.YD.) 24 Spec. Concrete (CU.YD.) CUT-OFF WALL CONSTRUCTION

Concrete Grout Concrete

Date (CU.YD.) 02/26/93 Redrill (FT / HR) enetration Rate 17.44 Orill (FT / HR) Redrill (HRS) Pure Drill Time Drill (HRS) 5.16 Redrill (F) Drill Footage Drill (FT) 8 CUT-OFF WALL EXCAVATION Excavation **DHD130A** quipment Rig N 07/26/93 Drilling Date

Total Drill Time = Average Penetration Rate =

5.16 Hours 17.44 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

1.5" N X .5" W 28.73 26.06 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 294 Area "A"

	-	Overbreak			21.0 45.1%
	Theoretical	Volume	(CU.YD.)		
	Spec.	Concrete	(CU.YD.)		30.5
NSTRUCTION	Non-Spec.	Concrete	(CU,YD.)		
VALL CO		Smit	(CU.YD.)		
CUT-OFF V		Consists	Date		06/12/93
	Rate	Dodrill	E CHILL	W. 11. 1	- I
	Donotration	5 10 10 10 10 10 10 10 10 10 10 10 10 10		(ענו / ונו)	15.41
			Hedrill	CHIES	
	Н	Fure Drill I III.		SH SH	5.84
			Redrill	(FI)	
I A COLE	NOIL	Drill Footage	Drill	Œ	66
	PF WALL EXCAVE	-	Excavation	Method	DHD130A
	CUT-C	Equipmen		*	1
			Drilling	Date	06/12/93

Average Penetration Rate = Total Drill Time =

5.84 Hours 15.41 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

1" N X 0" E/W 26.06 26.41 Verticality Information
At Full Depth =
S-ARC North =
S-ARC South =

Quality Coring: None.

Comments: Connected with pile 258

Primary Pile # 295 Area "A"

Concrete Date Redrill (FT / HR) Penetration Rate
Drill
(FT / HR) 15.87 Redrill (HRS) 5.67 Redrill (F) Drill Footage Drill (FT) 8 CUT-OFF WALL EXCAVATION Excavation DHD130A ₽ġ.* 07/27/93 Drilling Date

14.2%

21.0

24

Overbreak

Theoretical Volume (CU.YD.)

Spec. Concrete (CU.YD.)

L CONSTRUCTION
Non-Spec.
concrete
U,YD, (CU,YD.)

Grout (CU.YD.)

07/28/93

Total Drill Time = Average Penetration Rate =

5.67 Hours 15.87 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

.76" N X .25" W 26.41 25.55

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 296 Area "A"

		11000	MOLTY.						CUT-OFF WAL	S	ONSTRUCTION			
		THE WALL EXCAV	NO NO								Č	0-20	Thooppopul	
	Equipmon	+	Drill Footage		Pure Drill Time		Penetration Rate				Non-spec.	obec.	Henenca	A The state of
		1	-		-		-	11:10:00	Comments	1	descrot	Concrete	Volume	
0.11111	2	Evention	-	Redri		III DOY	Ē			3				
	20	- Verange		Į	1000	10010	(07/10)		Date		(00,00)	(CO.YD.)	(CO.AD.)	
Deta	*	Method	=	=		CHL	CUL / L		Caro				007	
Dale	+	2000			9		DA FO		64/08/93		130		13.0	
0/80/0	-	DHD130A	200		2.40		24:00		2000			8	7 10	70° LV
100				-		200	1001	20.50	2/2/2			K	7.17	
04/15/93	-	DHD130A	33	8		N'S		3	20.00					

5.23 Hours 17.78 Feet / Hour

Total Drill Time = Average Penetration Rate ==

Total Redrill Time = Average Penetration Rate =

2.00 Hours 29.50 Feet / Hour

Verticality Information

0" N/S X 2.25" W 25.55 26.69 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 297

Area "A"

5000	Non-spec. spec.	Dill Redrill Concrete Grout Concrete Concrete Voluine Overpream		18.95 07/23/94 26 21.0 23.7%	
	Pure Drill Time		(HRS)	4.75	
TION	Drill Footage	Drill Redrill	(FT) (FT)	8	
-OFF WALL EXCAVA	ment	Excavation	Method	2 DHD130A	
CUT-	Triin	Drilling Rig	Date #	07/23/94	

Total Drill Time = Average Penetration Rate =

4.75 Hours 18.95 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

0" N/S X .76" W 26.69 28.69 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 298 Area "A"

Drilling Date 02/04/93 06/04/93	CUT-O Equipmen Rig #	It Excavation Method DHD130A DHD130A	TION Drill Footage Drill (FT) 40	Redrill (FT)	Pure Drill Time Drill (HRS) 3.08	Redrill (HRS)	Penetration Rate Drill (FT / HR) 12.99	Redrill (FT/HR)	Concrete Grout Date (CU.X) 02/05/93 06/04/93	Grout (CU.YD.)	CONSTRUCTION Non-Spec. Concrete (YD.) (CU.YD.) 15	Spec. Concrete (CU.YD.)	Theoretical Volume (CU.YD.) 9.3	Overbreak 60.6% 57.3%
06/20/03	0	DHD130A	8	49	3.16	21/	12.97	677						
16 (67 (60)	2	1000												

6.87 Hours 13.10 Feet / Hour

Total Drill Time = Average Penetration Rate =

4.07 Hours 21.87 Feet / Hour

Total Redrill Time = Average Penetration Rate =

Verticality Information

1.5" N X 1.5" E 28.69 24.53

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: 6" Joint core 30.1' deep on 9/27/93

Comments:

Primary Pile # 299 Area "A"

		Overbreak		14.2%	
	Theoretical	(CU.YD.)		21.0	
	Spec.	Concrete (CU YD.)		24	
STRUCTION	Non-Spec.	Concrete			
WALL CONS		Grout	12.12.1		
CUT-OFF WALL		Concrete	OBIO	07/26/93	
	te	Redrill /ct / LD)	THE CALL		
	Penetration Re	Drill	מען / וגו	16.36	
		Redrill	CHL		
	Pure Drill Time	_ :	(2H2)	5.50	
		Redrill	1		
NOLL	Drill Footage		(FI)	06	
FE WALL FXCAVA	*	Ã	Method	DHD130A	
	Conjuga	Rig	*	2	
-		Drilling	Date	07/26/93	

Total Drill Time = Average Penetration Rate =

5.50 Hours 16.36 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

0' N/S X .76' E 24.53 28.06 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 300 Area "A"

Total Drill Time = Average Penetration Rate =

9.99 Hours 17.02 Feet / Hour

Total Redrill Time = Average Penetration Rate =

6.17 Hours 14.91 Feet / Hour

Verticality Information

1.5" N X .75" W 27.51 22.94

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 301 Area "A"

		A	CVerbreak		14.7%	
	Thomselve	TOO OUT	(CU.YD.)		32.7	
	Cooc	200	Concrete (CU:YD.)		37.5	
STRUCTION	Alon Caco	NOI-Space	Concrete			
CUT-OFF WALL CONSTRUCTION			Grout			
CUT-OFF			Concrete		07/24/93	
		- 1	Redrill (FT / HB)			
		Penetration Hate	Orill		19.10	
		•	Redrill	2		
		Pure Drill Time	Orie	211	7.33	
			Redrill	(1)		
ATION	100	Drill Footsage	= (Ī	140	
ECWALL EYCAV	THE WALL LADOR	-	Q,	Method	DHD130A	
	2	Fourinmen	Rig	*	8	
			Drilling	Date	07/24/93	

Total Drill Time == Average Penetration Rate ==

7.33 Hours 19.10 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

At Full Depth = S-ARC North = S-ARC South = Verticality Information

1"SX.5"E 22.94 30.97

Quality Coring: None.

Secondary Pile # 302 Area "A"

Total Drill Time =

9.66 Hours 14.60 Feet / Hour

Average Penetration Rate =

None

Total Redrill Time = Average Penetration Rate =

2.27" N X 2.77" E 30.97 Verticality Information

At Full Depth = S-ARC North = S-ARC South =

25.67

Quality Coring: NX/NQ to 144.1' deep on 8/18/93

Comments:

Primary Pile # 303

Area "A"

		Overhead	Na Colonia			14.7%	
	Theoretical	Mohimo		1.07.TU.		32.7	
	Spec		Concrete	CO.YO.		37.5	
STRUCTION	Non-Spec		Concrete	(CU.YD.)			
ICUT-OFF WALL CONSTRUC			Grout	(CU.VD.)			
ICUT-OFF		,	Concrete	Date		07/28/93	
		- Ł	Redrill	(FT/HB)			
		Penetration rate	iii.	(FT / HR)		14.99	
			Redrill	(HRS)			
		Pure Unil 1 me	Dilli	(HRS)		9.34	
			Redrill	Ę			
MATION		I Drill Footage	ling.			. 140	
CEMAN EVENN	ILL EVOLUTION		Evenation	Mathod	Michigan	DHD130A	
		Commission	Dio C	ĵ,	#	2	
					Date	06/27/93	

Total Drill Time = Average Penetration Rate =

9.34 Hours 14.99 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

1.5" N X 2.77" E 25.67 24.33 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 304 Area "A"

		Overbreak		30.0%	
	Theoretical	(CU.YD.)		32.7	
	Spec.	Concrete (CU.YD.)		42.5	
TRUCTION	Non-Spec.	Concrete			
CUT-OFF WALL CONSTR		Grout	20.00		
CUT-OFF		Concrete	Caro	07/08/93	
	ite	Redrill AT / LD	(111)		
	Penetration Rate	Drill	(ULI / LLI	14.74	
		Redrill	(SILL)		-
	Pure Drill Time	Dill	(SHE)	9.50	
		Redrill	(FI)		
NOIT	Drill Footage	<u></u>	Œ	140	
FF WALL EXCAVE		Excavation	Method	DHD130A	
0-110	Company	Rig	*	2	
		Drilling	Date	07/07/93	

9.50 Hours 14.74 Feet / Hour

Total Drill Time = Average Penetration Rate =

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

0" N/S X 0" E/W 24.33 25.67

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 305 Area "A" CUT-OFF WALL CONSTRUCTION
Concrete Grout Concrete
Date (CU.YD.) (CU.YD.) 08/05/93 Redrill (FT / HR) Penetration Rate Drill 14.74 (FT/HR) Redrill (HRS) Pure Drill Time Drill (HRS) 9.50 Redrill (T) Drill Footage Drill (FT) 45 CUT-OFF WALL EXCAVATION Excavation Method DHD130A Rig 07/31/93 Drilling Date

16.2%

32.7

8

Overbreak

Theoretical Volume (CU.YD.)

Spec. Concrete (CU,YD.)

Total Drill Time = Average Penetration Rate =

9.50 Hours 14.74 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

.76" S X 0" E/W 25.67 At Full Depth = S-ARC North = S-ARC South = Verticality Information

24.61

Quality Coring: None.

Secondary Pile # 306 Area "A"

	io,		Overbreak		32.7 57.5%	
	Thornoit	Hedrank	(CU.YD.)		10	
	Coco	Sher.	Concrete (CU.YD.)		51.5	
STRUCTION		Non-spec.	Concrete	200		
WALL CON			Grout	20.00		
CUT-OFF			Concrete	Date	07/09/93	
		ate	Redrill GT / HD	4		
		Penetration Re	Drill Purit	ונו / נונו	14.24	
			Redrill	(SUU)		
		Pure Drill Time	Orill	(SHE)	9.83	
			Redrill	(F)		
MOITA	101	Drill Footage		Œ.	140	
DEE WALLEYON	THE PART AND AND	nt.	ă	Method	DHD130A	
110	3	Follower	Rig	*	2	
			Drilling	Date	07/09/93	

9.83 Hours 14.24 Feet / Hour

Total Drill Time = Average Penetration Rate =

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

1.5" S X 5.92" W 24.61 29.74

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 307 Area "A"

-			Overbreak		13.2%	
	Theoretical		(CU.YD.)		32.7	
	Cooc	2000	Concrete		37	
CUT-OFF WALL CONSTRUCTION	Alon Cago	Mail-Spec.	Concrete (CU YD)			
WALL CONS			Grout			
CUT-OFF			Concrete	Caro	07/29/93	
		ite	Redrill (T)			
		Penetration Ha		ALL LINK	11.59	
		•	Redrill	CLU		
		Pure Drill Time	Drill	CHES	12.08	
			Redrill			
MULTION	1011	Drill Footage	<u></u>	(FI)	140	
T OFF WALL EYCAV	יייייייייייייייייייייייייייייייייייייי		,	Method	DHD130A	
1	3	Falimment	Rig	*	3	
			Drilling	Date	07/29/93	

Total Drill Time = Average Penetration Rate =

12.08 Hours 11.59 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

1" N X 2" W 29.74 23.36 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 308 Area "A"

		Jourton	N A A A A A A A A A A A A A A A A A A A		45.3%	
	Theoretical	Making	CIVID	121.000	32.7	
	Soec		Concrete	20.10.	47.5	
L CONSTRUCTION	Non-Spec	1000	Concrete	CO. 10.1		
WALL CONS			Grout	(CO.YD.)		
CUT-OFF			Concrete	Care	07/12/93	
	-		Redrill	(FI / HH)		
		Penetration Hate	Drill O	(FT/HR)	15.42	
			Redrill	(HRS)		
	ľ	Pure Unil Ime	E-CO	(HRS)	90.08	
			Redrill	(FI		
NOIF		Drill Footage	Drill	Ē	. 140	
YEE MALL EYCAVA	JET WALL LAUGH	14	Excavation	Method	DHD130A	
1110		Forting	Rid	*	2	
			Drilling	Date	07/12/93	

Total Drill Time = Average Penetration Rate =

9.08 Hours 15.42 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

1.25" S X 1" W

23.36 31.04 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 309 Area "A"

		Jamhard	Overblean		17.8%	
	Theoretical	Vehimo	(CU.YD.)		32.7	
	Spec		COLVD		38.5	
STRUCTION	Non-Spec.		Concrete	100		
WALL CONS		,	Grout	20.10.1		
ICUT-OFF WALL CONSTRUCTION			Concrete	Naio	08/03/93	
	, in	1	Redrill	LI / UU/		
	Denotember D.	Periodial nate		I (FI / HB)	17.68	
		e e	Redrill	(SHE)		
	1.1.1.1	Fure Unit I Ime	Drill	HES	7.92	
			Redrill	(E)		
ATION		Drill Footage	Duil	<u>E</u>	140	
EWALL EYCAV	WALL LAGAN		Excavation	Method	DHD130A	
TIO		Forment	Rig	*	2	
			Drilling	Date	08/02/93	

Total Drill Time = Average Penetration Rate =

7.92 Hours 17.68 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

2"N X .5"E 31.04 21.21 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 310 Area "A"

П						1
		Overbreak		0.8%	34.6%	
	Theoretical	Volume (CU.YD.)		7.9	327	
	Spec.	Concrete (CU.YD.)			4	
RUCTION	Non-Spec.	Concrete (CU.YD.)		60		
VALL CONST		Grout (CLI YD.)				
CUT-OFF V		Concrete		02/04/93	07/14/93	
	te	Redrill (FT / HB)			19.43	
	Penetration Rate	Drill (ET / HB)		19.43	12.35	
		Redrill	2		1.75	-
	Pure Drill Time	Drill	2	1.75	8.58	
		Redrill	111		8	
MOLL	Drill Footage	Ē		34	140	
FF WALL EXCAVA		Excavation	Method	DHD130A	DHD130A	
0-111-	o during	Rig	*	2	N	
_		Drilling	Date	02/03/93	07/14/93	

Total Drill Time = Average Penetration Rate =

10.33 Hours 13.55 Feet / Hour

1,75 Hours 19,43 Feet / Hour

Total Redrill Time = Average Penetration Rate =

Verticality Information

1.5" S X 2.5" E 21.21 30.73 At Full Depth =

S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 311 Area "A"

FF WALL EXCAVATION Pure t Drill Footage Pure Excavation Drill CFI CFI Method (FI) (FI) (FI) (FI) DHD130A 140 (FI) (FI) (FI)	CAVATION Drill Footage Pure Cotage Pure Cotage Cotage Pure Cotage	Time Penetration Rate Spec. Theoretical	Redriff Driff	(ULV)	8.84 15.84 08/04/93 38 32.7 16.2%		
FF WALL EXCAVATION t Drill Footage Pure Drill Time Penetration Rate Excavation Drill Redrill Drill Redrill Method (F) (F) (HRS) (FL/HB) (FT/HB) DHD130A 140 8.84 15.84 15.84	CUT - OFF WALL EXCAVATION Equipment Pure Drill Time Pure Drill Time Perietration Rate Redrill Pure Drill Time Perietration Rate Redrill Redrill Time Perietration Rate Redrill Redrill Time Redrill Time </td <td>UT-OFF WALL</td> <td></td> <td></td> <td></td> <td>08/04/93</td> <td></td>	UT-OFF WALL				08/04/93	
FF WALL EXCAVATION t Drill Footage Pure Drill Time Political Procession Political P	CUT - OFF WALL EXCAVATION Equipment Drill Footsage Pure Drill Time Pure Dr	0		Redrill	1	5.84	-
FF WALL EXCAVATION t Drill Footsage Pure Drill Time Excavation Drill Footsage Redrill Drill CHRS) Method (FT) (FT) (HRS) DHD130A 1440 8.84	CUT - OFF WALL EXCAVATION Equipment Drill Footsage Pure Drill Time Rig Excavation Drill CFI) (FI) (HBS) # Method (FI) (FI) (HBS) 6 2 DHD130A 140 8.84 884		Penetratic	_`	1	-	-
FF WALL EXCAVATION t Excavation Drill Method (FD) DHD130A 140	CUT - OFF WALL EXCAVATION Equipment		Pure Drill Time			8.84	
FF WALL EXCAVATION t Excavation Drill Foot Drill Method (F) DHD130A	CUT - OFF WALL EXCAVATION Equipment			Redrill	(L)		
W H H	CUT-OFF W Equipment Rig E #	ATION	Drill Footag	吾	(E)	41	
	О <u>й</u>	FF WALL EXCAV		Ш	Method	DHD130A	

Total Drill Time = Average Penetration Rate =

8.84 Hours 15.84 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

2" N X 2.25" W 30.73 27.41 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 312 Area "A"

	CITTO	JEF WALL EXCAVA	TION						CUT-OFF V	VALL CONS	TRUCTION			
	Farriamer	+	Drill Footage		Pure Drill Time		Penetration Rate				Non-Spec.		Theoretical	
Drilling	Rig	Excavation		Redrill	Orill	Redrill	Drill		Concrete	Grout	Concrete	Concrete	Volume	Overbreak
Date	*	Method	E	E	(HRS)	(HRS)	(FI/HR)	(FI / HH)	Date	Ш	(CO. YD.)		(CO. TO.)	
													•	, , ,
01/27/93	2	DHD130A	82		3.00		17.33		01/28/93		44		121	40.0%
00,000	,		077	S.	20.00	2.83	14 08	18.37	07/20/93			\$	327	22.4%
0//19/35	V	ADCIDUD.	2	3	2									

9.25 Hours 15.14 Feet / Hour

Total Drill Time = Average Penetration Rate =

2.83 Hours 18.37 Feet / Hour

Total Redrill Time = Average Penetration Rate =

Verticality Information

3.09" N X 3.09" E 27.41 25.82 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 313 Area "A"

VALL EXCAVATION	Non-Spec. Spec. Theoretical	Scavation Drill Redrill Drill Redrill Drill Redrill Concrete Grout Concrete	140 9.00 15.56 08/05/93	
OFF WALL EXCAVATION	ent	Ш	2 DHD130A	
CUT	Equipment	Drilling Rig	Date #	

Total Drill Time = Average Penetration Rate ==

9.00 Hours 15.56 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

2.5" N X 1" E 25.82 24.56 Verticality Information
At Full Depth =
S-ARC North =
S-ARC South =

Quality Coring: None.

Secondary Pile # 314 Area "A"

		(CU.YD.)		32.7 52.9%	
	Spec	Concrete (CU.YD.)		26	
CONSTRUCTION	Non-Spec.	Concrete (CU.YD.)			
WALL CONS		Grout			
CUT-OFF		Concrete		07/16/93	
		Redrill FT / HR			
	Penetration Rate			11.58	
		Redrill	2		
	Pure Drill Time		2	12.09	
		Redrill	(1.1)		
NOIT	Drill Footage	E (140	
FE WALL EXCAVA		Excavation	Метрод	DHD130A	
O.T.	Forming	Rig	*	8	
		Drilling	Date	07/15/93	

Total Drill Time = Average Penetration Rate =

12.09 Hours 11.58 Feet / Hour

Total Redrill Time = Average Penetration Rate =

1.5" N X 6.18" E 24.56 25.20 Verticality Information

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 315 Area "A"

1	_	_				
		1	Overbreak		19.3%	
	Theoretical		(CU.YD.)		32.7	
	Char	300	(CU.YD.)		93	
TRUCTION	Alon Choc	NOI Spec	Concrete			
WALL CONSTRUCTION			Grout	100		
CUT-OFF			Concrete	Date	08/06/93	
			Redrill	(11)		
		Penetration Hate	Diel	(ענו / וגו)	14.74	
		•	Redrill	CHE)		
		Pure Drill Time	E (2	9.50	
			Redrill	(4)		
MOIT	1011	Drill Footage		Œ	140	
TE WALL EYCAVA	TANKE LANGE		Excavation	Method	DHD130A	
TIL	2	fremont.	Rig	*	2	
C			Drilling	Date	26/90/80	

Total Drill Time = Average Penetration Rate =

9.50 Hours 14.74 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

1.5" N X 1" W 25.20 27.05 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 316 Area "A"

Drill Time Penetration Rate Concrete Infill Grout Non-Spec. Spec. Theoretical Notine Overbreak Drill Redrill Drill Redrill Concrete Concrete Concrete Volume Overbreak HRS) (HRS) (FI / HR) (FI / HR) Date (CU / YD.) (CU / YD	ATION						CUT-OFF V	VALL CONS	TRUCTION			
Fedrill Prill Fedrill Concrete Grout Concrete Concrete Court		ď			,			Non-Spor	Snec	Theoretical		
Redrill Drill Redrill Concrete Grout Concrete Volume Overal CU.YD.) (CU.YD.) ootade		Pure Unil Ime		Penetration Ha	ire			200	:			
HES) (FT/HR) (FT/HR) Date (CU.YD.) (CU.YD.) (CU.YD.) (CU.YD.) (CU.YD.) (CU.YD.) (CU.YD.) (CU.YD.) (CU.YD.) (CU.YD.)		l	=	Dodeill	-	Dodrill	Concrete	1	Concrete	Concrete	Volume	28908X
(HRS) (FT / HR) (FT / HR) Date (CU.YD.) (CU.YD.) (CU.YD.) (CU.YD.) (CU.YD.) (CU.YD.) (CU.YD.) (CU.YD.) (CU.YD.)	Hedrill		5		3		2000					
8.42 16.63 07/21/93 41 32.7	£	_	FER	HES	EH/HB	EH/FE	Date	(CC:YO)	(CU.YD.)	(CU.YD.)	(CU.YD.)	Control of the Contro
16.63 07/21/93 41 32.7			2									
	9		CV R		16.63		07/21/93			41	32.7	
	2		i		3							

Total Drill Time = Average Penetration Rate =

8.42 Hours 16.63 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

1.75" N X .5" E 27.05 31.56

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 317 Area "A"

	1	VEC WALL EYOAVA	TION						CUT-OFF WALL CONSTRUCTION	VALL CONS	TRUCTION			
	2 2 2	JEL WALL LAUAY	NO.								Mon Coop	Coo	Theoretical	
	-disipment	+	Drill Footage		Pure Drill Time		Penetration Hate				Mail Space			
Drilling	Rig	S.	<u></u>	Redrill	Drill	Redrill	Orill GT / LD	Redrill FT / HB	Concrete	Grout	Concrete (CU.YD.)	COUCYD.)	(CU.YD.)	Overbreak
Date	*	Method	(F)		SAL	2								
08/07/93	8	DHD130A	140		7.66		18.28		08/07/93			39.5	32.7	20.8%

Total Drill Time = Average Penetration Rate =

7.66 Hours 18.28 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

5.5" N X 3" E 31.56 20.46 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 318 Area "A"

	CUT-0	FF WALL EXCAVA	VIION						CUT-OFF W	ALL CONS	TRUCTION			
	Fournmen	+	Drill Footage		Pure Drill Time		Penetration Rate	8			Non-Spec.	Spec.	Theoretical	
Drilling	D	Excavation	Drill	Redrill		Redrill	ELO.	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
Date	*	Method	£	<u>E</u>	(HRS)	(HRS)	(FT / HR)	(FT / HR)	Date	(CU:YD:)	(CU.YD.)	(CU.YD.)	(CU.VD.)	
												ï	1	200
02/06/93	3	DHD130A	140		12.42		11.27		07/05/93			\$	32/	65.2%

Total Drill Time =

12.42 Hours 11.27 Feet / Hour

Average Penetration Rate =

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

1.58" N X 1.05" E 20.46 24.45

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 319 Area "A"

CUT-OFF WALL CONSTRUCTION	me Penetration Rate Non-Spec. Spec. Theoretical	Concrete Grout Concrete Concrete	(HRS) (FT/HR) (FT/HR) Date (CU.YD.) (CU.YD.)	8.48 16.51 08/09/93 38 32.7 16.2%
WALL CO				
CUT-OFF		Concrete	Date	26/60/80
		Redrill	(FT/HR)	
	Penetration Rat		(FT/HR)	16.51
		Redrill	(HRS)	
	Pure Drill Time	Dill	(HRS)	8.48
		Redrill	(F)	
TION	Drill Footage	Drill.	Œ	140
FF WALL EXCAVA		Excavation	Method	DHD130A
CUT-O	Equipment	Rid	*	2
		illina	Date	8/09/93

Total Drill Time =

8.48 Hours 16.51 Feet / Hour

Average Penetration Rate =

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

0" N/S X 1.5" E 24.45 27.99 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 320

Area "A"

		AVACATI I TAVA	TION						CUT-OFF WALL CONSTRUCTION	VALL CONS	TRUCTION			
		JEE WALL EXCAVE	101								Nom Onco	. Seus	Theoretinal	
	000000000000000000000000000000000000000	*	Drill Footage		Pure Drill Time		Penetration Rate	Ite			NOT-Spec.	300	TO TO THE	1
	0000	_	Drill C	Dodnill	Pier C	Redrill	Drill	Redrill	Concrete		Concrete	Concrete	Volume	CVerbreak
	Ş.	Excavation	5 6	3 6	TOO!	(HBC)	FT / HB	(FT / HR)	Date	(CU.YD.)	(CU.VD.)	(CC:YD:)	(CU.VD.)	
Date	#	Method	(1)		2	2				II				
			•		0		14.61		06/15/93		49		32.7	49.9%
06/14/93	-	DHD130A	140		80.5									
			,	7,0		0 50		14.61	06/23/93			8	32.7	19.3%
06/23/93	-	DHD130A	040	9		3.6								

9.58 Hours 14.61 Feet / Hour

Total Drill Time = Average Penetration Rate =

9.58 Hours 14.61 Feet / Hour

Total Redrill Time = Average Penetration Rate =

Verticality Information

1" N X .75" W 27.99 26.68 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments: PLATFORM COLLAPSE HELD 14 CU. YD. OF CONCRETE. COLLAPSE WAS UNDER THE MAT. AIRLIFTED PILE.

Primary Pile # 321

Area "A"

		15	Y N		19.3%	
		Acompton of	Over			
	Theoretical	Mark and	(CU.YD.)		32.7	
	Spec	1	(CU.YD.)		8	
TRUCTION	Non-Spec		(CU YD.)			
CUT-OFF WALL CONSTRUCTION			Grout			
CUT-OFF			Concrete	Caro	08/10/93	
			Redrill 1			
		Penetration Hate		לעון / טון	14.61	
			Redrill	CHIES	•	
		Pure Drill Time		HES	9.58	
			Redrill	(F)		
MOIT	10011	Drill Footage	Dial	Œ	140	
CE WALLEYCAVE	T WALL LACAN	-	Ä	Method	DHD130A	
110		nemoin in a	Rig	#	2	
			Drilling	Date	08/10/93	

Total Drill Time = Average Penetration Rate =

9.58 Hours 14.61 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

1" N X 1" E 26.68 27.47 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 322 Area "A"

		Overbreak		-2.1% 49.9% 26.9%
	Theoretical	Volume	20.00	9.3 32.7
	Spec.	Concrete	77.7	41.5
TRUCTION	Non-Spec.	Concrete	(.0.10.)	8 14
WALL CONS		Grout		
CUT-OFF		Concrete	Lare	01/27/93 06/04/93 06/18/93
	1 1	Redrill	(FI / HH)	31.53
	Penetration Rate	Orill	(FT / HH)	13.57 15.15 13.04
		Redrill	(HRS)	1.11
	Pure Drill Time	Drill	(HRS)	2.58 0.33 7.67
		Redrill	E	35
MOITA	Drill Footage	E C	Œ	35 40 140
FE WALL EXCAVA		Excavation	Method	DHD130A DHD130A DHD130A
O-TI-O	- Olivinen	Rig	*	2
		Drilling	Date 0	01/27/93 06/04/93 06/17/93

10.58 Hours 13.23 Feet / Hour

Total Drill Time = Average Penetration Rate =

Total Redrill Time = Average Penetration Rate ==

2.78 Hours 26.98 Feet / Hour

Verticality Information

1.5" N X 1" E 27.47 26.00

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 323 Area "A"

		Overbreak		16.2%	
	Theoretical	Volume (CU.YD.)		32.7	
	Spec.	Concrete (CU.YD.)		88	
TRUCTION	Non-Spec.	Concrete (CU.YD.)			
CUT-OFF WALL CONSTRUCTION		Grout (CU.YD.)			
CUT-OFF		Concrete		08/12/93	
	late	Redrill (FT / HR)			
	Penetration Rate	Drill GH / FJ		15.40	
		Redrill	2		
	Pure Drill Time	Dill Sep	2	90.0	
		Redrill			
ATION	Drill Footage	<u> </u>		140	
FF WALL EXCAVA		Excavation	Memod	DHD130A	
CIT-O	Formone	Rig	*	8	
		Drilling	Date	08/11/93	

Total Drill Time = Average Penetration Rate =

9.09 Hours 15.40 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

1" N X 0" E/W 26.00 27.72 Verticality Information

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 324 Area "A"

	TIV	T OFF WALL EXCAVA	NOIL						CUT-OFF WALL CONST	VALL CONS	TRUCTION			
		I WALL COAN			1		Donostonion Do	94			Non-Spec	Spec.	Theoretical	
	-onlinen	+	Drill Footage		Fure Drill Ime		reliellation nate	- 1			المرا مام		Webser	And the second
	2			Hirton C	===	Dodrill	100	Redrill	Concrete	Grout	Concrete	Concrete	Volume	CVerbreak
Drilling	. E	Excavation	5	Hedri			5				9	3	5	
2	0 :	Mathod	Ę	Œ	HRS	E SS		(FT / HR)	Date	(CU.YD.)	(CU.YU.)	(.01.00)	(20.10.)	
Care	#	Medica			2									
					G G		14.61		06/08/04			48	32.7	46.8%
06/01/93	_	DHD130A	041		6.56		14.0		5/5/5			!		

9.58 Hours 14.61 Feet / Hour

Total Drill Time = Average Penetration Rate =

Total Redrill Time = Average Penetration Rate ≂

None

Verticality Information

1.71" N X .85" W 27.72 26.66 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments: Water flow eroded hole at 25' causing a cavity after drilling.

Primary Pile # 325

Area "A"

Total Drill Time = Average Penetration Rate =

9.57 Hours 14.63 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

1.75" N X 1.5" E 26.66

24.98 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 326 Area "A"

	11,0	SEE MAIL EVENAVA	TION						CUT-OFF V	VALL CONSTRUCTION	TRUCTION			
		JEE WALL EACAY									Non Snor	Spies	Theoretical	
	Comoi In	+	Orill Footage		Pure Drill Time		Penetration Hate	ıte			Mail Space	3		
			5	1				2770	-	1	Constant	Concrete	OF ITTE	Cyclored
Cailling	.S.	Evesvation	Duil	Redrill	Ē	Redrill	5	Hedull	Concrete	1005		2000		
5	20		Ę	Ę	(SOD)	HES	(FT / HB)	FT/HB	Date	(CO:AD)	(CU.YD.)	(CO.AD.)	(CO.YD.)	
Date	*	Method			2	2								
00/44/00	•	DHD130A	140		11.49		12.18		06/12/93			54.5	32.7	92.59
Se/11/90														

Total Drill Time = Average Penetration Rate =

11.49 Hours 12.18 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

.58" N X 3.21" E 24.98 25.63 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 327 Area "A"

		ALVA COLUMNIA	NO.						ICUT-OFF	MAL	L CONSTRUCTION			
	3	JEE WALL EXCAVE	ALIONA ALIONA							-	Man Chan	Chan	Theoretical	
	Editioner	Ť	1 Drill Footage		Pure Drill Time		Penetration Ra	9			NOI-Spec.	9000	The section	1
		Contraction	===	Dadrill	Ē	Redrill	Die.	Redrill	Concrete	Grout	Concrete	Concrete	VOLUMBE	OVERDICAR
Bulling	ğ	CACAVALION	5	3 ((00)	(07/10)	(GH / LG/	Pate		(Cn.XD)	(CC.YD.)	(CC:\D:)	
Date	*	Method	E	(H)	QUE.	CHU	מטוי		2000					
07/23/93	2	DHD130A	140		10.41		13.45		07/23/93			33	32.7	19.3%

Total Drill Time = Average Penetration Rate =

10.41 Hours 13.45 Feet / Hour

Total Redrill Time = Average Penetration Rate ==

None

Verticality Information

0" N/S X 0" E/W 25.63 23.63 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 328 Area "A"

	O IT	DEF WALL EXCAVA	NOIT						CUT-OFF V	VALL CONS	TRUCTION			
		*	Drill Ecopora		Pure Drill Time		Penetration Rate	9			Non-Spec.	Spec.	Theoretical	
	Eduipmen	ľ	DE STATE OF THE ST		: =	Dadeill	-	Dodrill	Concrete	Growth	Concrete	Concrete	Volume	Overbreak
Drilling	¥.	Excavation	5(Lagra Carrier	5 5		Date			(CU.YD.)	(CU.YD.)	
Oate	*	Method	E .	Ī	(CHIPS)	CLU	ALL THE		Date	20.00	100			
													•	į
02/03/93	2	DHD130A	ş		0.75		45.33		02/04/93		80		6.7	0.8%
													1	-
06/21/93	+	DHD130A	140	ਲ	80.8	1.50	13.12	22.67	06/21/93			48.5	125	48.4%

Average Penetration Rate = Total Drill Time =

8.83 Hours 15.86 Feet / Hour

Total Redrill Time = Average Penetration Rate =

1.50 Hours 22.67 Feet / Hour

Verticality Information

2.07" S X 1.56" E 23.63 25.32

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 329 Area "A"

	OIT-C	DEF WALL EXCAVA	NOITY						CUT-OFF V	VALL CONS	TRUCTION			
	Farring		Drill Footage		Pure Drill Time		Penetration Rate	te			Non-Spec.	Spec.	Theoretical	
Drilling	Rig	ā.	E	Redrill	Drill	Redrill	Drill (FT / HR)	Redrill (FT / HR)	Concrete	Grout (CU.YD.)	Concrete (CU.YD.)	Concrete (CU.YD.)	Volume (CU.YD.)	Overbreak
Cate	#	Memod			2	211								
08/19/93	2	DHD130A	140		79'2		18.25		08/20/93			8	32.7	10.1%

Total Drill Time = Average Penetration Rate =

7.67 Hours 18.25 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

3"S X 0" E/W 25.32 30.42 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 330 Area "A"

		AVACATI TANA	TAC I						CUT-OFF V	WALL CONSTRUCTION	TRUCTION			
		JEE WALL EXCAVE	201		-						Alan Ones	Snoo	Theoretinal	
	Eq. in	**	Orill Footage		Pure Drill Time		Penetration Ra	9			Non-spec.	3000	i i de la la la la la la la la la la la la la	
Cuilling		Evravation	Drill	Redrill	Drill	Redrill	Drill	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Cveroreak
D +0C	P #	Method	<u>E</u>	E	(HRS)	(HRS)	(FT / HR)	(FT/HR)	Date	(CU.YD.)	(CU.YU.)	(CU.YU.)	(.07.00)	
Dale		2000											1	
06/28/93	-	DHD130A	141						06/28/33			₹ }	628	£ 98

Total Drill Time,= Average Penetration Rate =

Hours Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

0" N/S X 3.5" W 26.69 27.77 S-ARC North = S-ARC South = At Full Depth =

Quality Coring: None.

Comments:

Primary Pile # 331 Area "A"

19.3% Overbreak 32.7 Neoretical Volume (CU.YD.) ළ Spec. Concrete (CU.YD.) CUT-OFF WALL CONSTRUCTION

Concrete Grout Concrete

Date (CU.YD.) (CU.YD.) 08/23/93 Concrete Date Rednill (FT / HR) 19.07 (FT/HR) Redrill (HRS) Pure Drill Time Drill (HRS) 7.34 Redrill (E) Drill Footage Drill (FT) 140 CUT-OFF WALL EXCAVATION Excavation **DHD130A** 8 Rig 08/21/93 Drilling Date

Average Penetration Rate = Total Drill Time =

7.34 Hours 19.07 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

At Full Depth = Verticality Information

0' N/S X 2' W 27.77 25.67 S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 332 Area "A"

	TIO	VEC WALLEYOAV	MOITA						CUT-OFF W	F WALL CONSTRUC	TRUCTION			
		יייייייייייייייייייייייייייייייייייייי	Drill Ecotogo		Pure Drill Time		Penetration Rate	6			Non-Spec.	Spec.	Theoretical	
		1	DIN COMPA		- 1						0	Concrete	Vokimo	Chartrook
Drilling	Ş	Excavation	Dirig	Redrill	Ē	Redrill	5	Hedrill	Concrete	JI O	Concrete	Calcian	A COUNTRY	CAGINICAN
2	•	Mothod	Ę	Œ	(HRS)	HRS)	EH/FE	FT / HR	Date	(CU:VD:)	(CU.YD.)	(CU.VU.)	(CU.YD.)	
Date	*	Menion												
07/01/93	-	DHD130A	140		10.83		12.93		07/01/93			47	32.7	43.8%
											Yes and the second seco			

Total Drill Time =

10.83 Hours 12.93 Feet / Hour

Average Penetration Rate =

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

At Full Depth = S-ARC North = S-ARC South =

.75" N X .75" W 25.67 33.28

Quality Coring: None.

Comments:

Primary Pile # 333 Area "A"

		Overbreak		19.3%
	Theoretical	(CU.YD.)		32.7
	Spec.	Concrete		8
TRUCTION	Non-Spec.	Concrete		
WALL CONST		Grout		
ICUT-OFF V		Concrete	244	07/28/93
		Redrill	1	
	Penetration Rate	Drill Out / To	017	13.89
		Redrill	2	
	Pure Drill Time	Drill	(SHE)	10.08
		Redrill	C L	
MOIL	Drill Footage	Dill		140
F-OFF WALL FXCAVA	-	Ē	Method	DHD130A
0-110	Fallinmen	Rig	#	2
		Drilling	Date	07/28/93

Total Drill Time = Average Penetration Rate =

10.08 Hours 13.89 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

O" N/S X .76" W 33.28 25.97 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 334 Area "A"

11.17 Hours 12.53 Feet / Hour

Total Drill Time = Average Penetration Rate =

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

At Full Depth = S-ARC North = S-ARC South =

5" N X 0" E/W 25.97 25.23

Quality Coring: None.

Comments:

Primary Pile # 335

Area "A"

	heoretical	Vehimo	(CU.YD.)		32.7 22.4%	
	Spec	1	(CU.YD.)		40	
CUT-OFF WALL CONSTRUCTION	Mon-Snor	Mar Spec.	Concrete			
WALL CON		,		77.107		
CUT-OFF			Concrete	nale	08/05/93	
			Redrill	(FI / HR)		
		enetration Hate	Oull	(FI / HB)	17.14	
			Redrill	(HRS)		
		Pure Drill Time	Drill	(HRS)	8.17	
			Redrill	Œ		
NO.	101	Orill Footbook	Diil	(FI)	140	
ALVA CONT. TAVA	THE WALL EXCAVA		Excavation	Method	DHD130A	
	2-22		Rid	*	3 2	
			Drilling	Date	07/31/93	

Total Drill Time = Average Penetration Rate =

8.17 Hours 17.14 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

4.5" N X 1.51" E At Full Depth = S-ARC North = S-ARC South =

25.23

Quality Coring: None.

Secondary Pile # 336 Area "A"

	O. IT.	SEE WALL EXCAVA	NOIT						CUT-OFF WA	WALL CONS	STRUCTION			
		יייי דיייייייייייייייייייייייייייייייי	Drill Footage		Pure Drill Time		Penetration Rate	te			Non-Spec.	Spec.	Theoretical	
Drilling	Rig	Ψ,		Redrill	Drill	Redrill	Orill (FT / HR)	Redrill (FT / HR)	Concrete	Grout (CU,YD.)	Concrete (CU.YD.)	Concrete (CU.YD.)	Volume (CU.YD.)	Overbreak
Date	*	Memod			(SULL)	2								
01/21/93	2	DHD130A	8		8.91		5.95			न्ड	SUMP		12.4	
06/16/93	***	DHD130A	140	SS	10.00	0.50	8.70	106.00	06/17/93		\$8		32.7	71.3%
07/19/93		DHD130A	140	140		6.83		20.50	07/19/93			64	327	22.4%

18.91 Hours 7.40 Feet / Hour Total Drill Time = Average Penetration Rate =

Total Redrill Time = Average Penetration Rate =

7.33 Hours 26.33 Feet / Hour

Verticality Information

3.75" N X 5.38" E 20.50 25.94

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments: Used hole as a sump

Primary Pile # 337 Area "A"

		OVERDIBLE		14.7%	
	_	(CU.YD.)		32.7	
	Spec.	Concrete (CU.YD.)		37.5	
TRUCTION	Non-Spec.	Concrete			
IT-OFF WALL CONSTRUCTION		Grout			
CUT-OFF		Concrete	Callo	07/29/93	
		Redrill (T)	1111		
	Penetration Rate	Drill	ונו / עונו	18.67	
		Redrill	CHE		
	Pure Drill Time	Diag.	(SEL	7.50	
		Redrill	(LE)		
ATION	Drill Footage	ii l	(+1)	140	
FF WALL FXCAV	1	Excavation	Method	DHD130A	
C-TIIC	Forming	Rig	#	2	
_		Drilling	Date	07/29/93	

Total Drill Time == Average Penetration Rate ==

7.50 Hours 18.67 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

At Full Depth = S-ARC North = S-ARC South = Verticality Information

0" N/S X 1.75" E 25.94 26.02

Quality Coring: None.

Secondary Pile # 338 Area "A"

Total Drill Time = Average Penetration Rate =

17.25 Hours 8.12 Feet / Hour

Total Redrill Time = Average Penetration Rate =

Verticality Information

.5" S X 0" E/W 26.02 28.13 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 339 Area "A"

		The state of	CVerbreak			13.2%	
	Theoretical		AMINO	(CO.YO.)		32.7	
	Choc	3	Concrete	(CU.YD.)		37	
TRUCTION	Alon Coo	NOT - Spec.	Concrete	(CU.YD.)			
WALL CONS			Grout	(CU:YD:)			
CUT-OFF WALL CONSTRUCTION			Concrete	Date		07/30/93	
		Ite	Redrill	(FT / HR)			
		Penetration Rate	Dril	(FT/HR)		17.26	
		•	Redrill	(HRS)			
		Pure Drill Time	Dill	(HRS)	,	8.11	
			Redrill	Ę			
NOLL	1000	Drill Footage	Drill	Ę	7	140	
EE WALL EYOAVA	TANCET LANGE		Excavation	Mathod	Medica	DHD130A	
	3	Equipment	Dio C	? =	*	8	
			Drilling		Date	02/30/93	

Total Drill Time = Average Penetration Rate ≈

8.11 Hours 17.26 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

1" S X 1" W 28.13 31.44

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 340 Area "A"

			1401						CUT-OFF WALL CONSTRUCTION	VALL CONS	TRUCTION			
		DEF WALL EXCAVA	202								Alam Sage	Sner	Theoretical	
			Drill Footsole		Pure Drill Time		Penetration Rate	te			NOTION OF	3	1/-1	American Co
					-			Dodrill	Concrete		Concrete	Concrete	Acutine	
Drilling	Ria	Excavation		Redrill		Hedrill			Opto Control			(CU.YD.)	(CU.YD.)	
200	*	Method	Œ	E	HRS	(HRS)	FI / HH)	מנו / ונו	Date	100.00				
07/40/03	,	DHD130A	140		14.34		9.76		07/12/94			48	32.7	46.8%
26/20/20	4													

14.34 Hours 9.76 Feet / Hour

Total Drill Time = Average Penetration Rate =

Total Redrill Time = Average Penetration Rate =

Verticality Information

At Full Depth = S-ARC North = S-ARC South =

0' N/S X 0' E/W 28.13 31.44

Quality Coring: None.

Comments:

Primary Pile # 341

Area "A"

									CUT-OFF WALL CONSTRUCTION	WALL CONS	TRUCTION			
	1001-0	DEF WALL EXCAVA	NON								Non-Spor	Snor	Theoretical	
			Chill England		Pure Drill Time		Penetration Rate	te e			NOT-Shee	3000	1/-1	Jumphund
		1	Seaso IIIO	Ī	١.		-	Dodrill	Concrete	1	Concrete	Concrete	Volume	
Drilling	ä	Excavation	i i	Redrill		Hedrill	5	III III	STATE OF THE PARTY		2			
	n +	Mathod	Ę	Œ	HRS)	HRS)	(FT/HR)	(FI / HK)	Date	(20.10.)	20.00	7.7		
Date	*	MICHICA	-											
08/03/93	2	DHD130A	140		9.45		14.86		08/03/93			88	32.7	16.2%

Total Drill Time = Average Penetration Rate =

9.42 Hours 14.86 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

3.5" N X O" E/W At Full Depth = S-ARC North = S-ARC South =

31.44

Quality Coring: None.

Secondary Pile # 342 Area "A"

_	1	TEE WALL EXCAVA	NOIL						CUT-OFF V	VALL CONS	NSTRUCTION			
		A MALE LACAN	Drill Footage		Pure Drill Time		Penetration Rate	fe			Non-Spec.	Spec.	Theoretical	
Drilling	Rig	Excavation		Redrill		Redrill	Drill (FT / HB)	Redrill (FT / HR)	Concrete	Grout (CU.YD.)	Concrete (CU.YD.)	Concrete (CU.YD.)	Volume (CU.YD.)	Overbreak
Date	*	Method	T.		2	2								
07/13/93	2	DHD130A	140		90.08		15.42		07/13/93			43	32.7	31.5%

9.08 Hours 15.42 Feet / Hour

Total Drill Time = Average Penetration Rate =

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

1.25" N X 2" E 23.26 28.83

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 343

Area "A"

		Overbreak	16.2%
	_	(CU,YD.)	32.7
	Spec.	Concrete (CU.YD.)	88
TRUCTION	Non-Spec.	Concrete (CU,YD.)	
CUT - OFF WALL CONSTRUCTION		Grout	
CUT-OFF		Concrete	08/04/93
	ate	Redrill /FT / HB)	
	Penetration Rate	Dirig Li	13.54
		Redrill	
	Pure Drill Time		10.34
		Redrill	(F1)
MOLTA	Drill Footsco	IIIO	(F.I)
TEE WALL EXCAVE	THE PROPERTY	Excavation	Method DHD130A
		Rig	* 8
		Drilling	Date 08/04/93

10.34 Hours 13.54 Feet / Hour

Total Drill Time = Average Penetration Rate =

None

Total Redrill Time = Average Penetration Rate =

2.77" N X 1.5" E 28.83 25.81 At Full Depth = Verticality Information

S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 344 Area "A"

									CUT-OFF V	VALL CONS	TRUCTION			
	0-13	-OFF WALL EXCAVA	CO								Man Cross	Spec	Theoretical	
			Drill Footson		Pure Drill Time		Penetration Rate	te			NOTI-ODAY.		Mahimo	O mehinolo
			Office of the second			ļ			Concrete	trace	Concrete		AOMUMB	September 1
Drilling	Rig	Excavation	Duil	Redril		Hedrill			Pate		(CILVD)	(CU.YD.)	(CU.YD.)	
2	·*	Method	Œ	E	HRS	(HFS)	עוו / ווו	ALL LI	Date	1				
Dale	-												1	-
			•		8		23.00		06/24/93		17.5		10.7	86.78
06/23/93	-	DHD130A	₽		3,		2							
						-			07/46/02			37.5	32.7	14.7%
07/16/03	0	DHD130A	140	46	7.50	2.67	827	37.7	26/01/10					
20170														

Total Drill Time = Average Penetration Rate =

9.50 Hours 14.74 Feet / Hour

Total Redrill Time = Average Penetration Rate =

2.67 Hours 17.23 Feet / Hour

Verticality Information

2.15" N X O' E/W 25.81 25.08

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 345 Area "A"

		Sandy mark	OVER DI BAN			7 25.4%	
	Theoretical	, Cohimo	ANITION	(CU.YD.)		32.7	
	Chac	3	Concrete	(CU,YD.)		41	
TRUCTION	Non-Chor	NOIL-Space	Concrete				
WALL CONSTRUCTION			-		20.00		
CUT-OFF W			Concrete	Deta	Calc	08/06/93	
		n Rate	Bodell		(L1 / DD)		
		Penetration R	Ę		(FI / HR)	16.97	
		•	l	Hedrill	(HHS)		
		Pure Drill Time			(HRS)	8.25	
				Redrill	E		
I TO I E	A C C S	Drill Footson		E C	Œ	140	
The Own I see and	JEE WALL EXCAV			Excavation	Method	DHD130A	
				Bä	*	2	
				Drilling	Date	08/06/93	

Total Drill Time = Average Penetration Rate =

8.25 Hours 16.97 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

1" N X 1" W 25.08 20.42 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 346 Area "A"

	OIT-O	FE WALL EXCAVA	NOIL						CUT-OFF V	WALL CONS	CONSTRUCTION			
		THE PARTY OF THE P	Drill Ecotage		Pure Drill Time		Penetration Rate	ite			Non-Spec.	Spec.	Theoretical	
	Education		Office I will			l	7	Hi-Pool	Concention	4	Concrete	Concrete	Votime	Overbreak
Orilling	Big	Excavation	Ē	Hedrill	5	Hedri	5		DE LO LO	1000				
Date	?#	Method	E	E	(HRS)	ERS)	FF/HR)	(FT/HR)	Date	(CU.YD.)	(CU.YD.)	CO.TO.)	CO. 10.)	
Date														
00,00,00	,	DUD-1204	8		00 6		10.00		06/60/90		88		21.0	80.8%
02/02/32	-	Special Control	3		}							1		
	_	***************************************	5	8	8	3 08	15.63	888	06/28/93		8		28.0	14.2%
06/25/93	-	DHUTSCA	2	R	36.1	3	3							
						0,0	40.00	44 42	07/07/03			98	32.7	16.2%
07/26/93	8	DHD130A	140	82	06.	10. 14.	3.5		20/12/10			}		

12.42 Hours 11.27 Feet / Hour Total Drill Time = Average Penetration Rate =

11.57 Hours 18.15 Feet / Hour

Total Redrill Time = Average Penetration Rate = Verticality Information

3"S X O" E/W At Full Depth =

20.42 30.52 S-ARC North = S-ARC South =

Quality Coring: None.

Comments: PILE CAVED IN ON 6/9/93 AND 6/25/93.

Primary Pile # 347

Area "A"

L	1	CE WALL EYCAVA	TION						CUT-OFF WALL C	VALL CONS	TRUCTION			
	בי בי	T WALL LADAY	1011								Man Coop	Com	Theoretical	
	nemuino		Drill Footage		Pure Drill Time		Penetration Hate				NOT - SPACE	300	TION CITY	
,		1					-			4	Comment	Contractor	omido)	Chartear
	Ş	Excavation	i C	Redrill	Ē	Redrill	5	EDBY	Concrete	105	COLCIMA	Calciere		A COLORON
2	D .	The state of	Ę	Ę	(PDG)	HRS	EH/FE	EH/FB	Date	(CC:YO:)	(CU.VD.)	(CU.YD.)	(CU.YU.)	
Date	#	мешод	(1.1)		2	2								
08/07/93	N	DHD130A	140		8.16		17.16		08/02/93	•		40	32.7	22.4%

Total Drill Time = Average Penetration Rate =

8.16 Hours 17.16 Feet / Hour

None Total Redrill Time = Average Penetration Rate =

Verticality Information

0" N/S X 3" W 30.52 25.86 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 348 Area "A"

			140						CUT-OFF WAL		CONSTRUCTION			
		IFF WALL EXCAVA	NON								0 14	Coco	Thorrotinal	
			Orill Footbade		Pure Drill Time		Penetration Pate	9			NOT-Spec.	300	Mark and	- Town
		1	2000	1			-		Constitute	1	Concrete	Concrete	Notime	A PRINCIPAL
Drilling	Š	Excavation		Redrill		Hear	5		20000			5		
2	P :	7 - 7 - 74	Ę	Ę	(HRS)	(HRS)	EH/FB	FT/HR)	Date	(CO. VD.)	(.01.0.)	100.00	20.00	
Date	*	Method	(11)		2111									
			9,		12 42		11.27		06/22/93		48		32.7	46.8%
06/21/93	-	DHD130A	₹		7.45									
				,		60 9		20 45	07/29/93			9	32.7	22.4%
07/28/93	-	DHD130A	140	041		3		1						

12.42 Hours 11.27 Feet / Hour

Total Drill Time = Average Penetration Rate =

6.33 Hours 22.12 Feet / Hour

Total Redrill Time = Average Penetration Rate =

.5' S X .5' W 25.86 28.77

Verticality Information
At Full Depth =
S-ARC North =
S-ARC South =

Quality Coring: None.

Comments: PLATFORM COLAPSE AND PILE CAVE IN.

Primary Pile # 349

Area "A"

•									CUT-OFF WA	VALL CONS	TRUCTION			
		DEF WALL EXCAVE									Non Com	l	Theoretical	
			Drill Footsce		Pure Drill Time		Penetration Rate	9			MOI SPACE	3	Topicological and a second	A market
		11			Ш		7	Hirt-C	Concrete	+ 220	Concrete		volume	
		Evention	11.0	Redrill	===	Pedu	5	Hedri	Colciere	3	200			
Guilling	5	Extravallor	5		30.0	10010	67/10	GH/ LE	Cate	(25)	(CC, VD.)		(01.00)	
Date	*	Method	E)	=	SHE SHE	2	CULL L							
Date		2000												
08/10/93	2	DHD130A	140	-	9.92		14.11		08/10/93			38.5	32.7	17.8%
				,										

Total Drill Time = Average Penetration Rate =

9.92 Hours 14.11 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

1" N X 1" E 28.77 27.78 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 350 Area "A"

_	1	VEC WALLEYON	MOIT						CUT-OFF W	WALL CONST	TRUCTION			
	1 2	JEE WALL EAUTY	NO. I								Alon Cooc	Snor	Theoretical	
	Fortingen	**	Drill Footage		Pure Drill Time		Penetration Hate				Mail spec.	ind		
	2				170	Dodrill	=	Bedrill	Concrete	Grant	Concrete	Concrete	Noume	CVertoreax
Drilling	Big	Excavation	5	Hedrill	5		5			3				
2	? 4	Mothod	Ę	Ę	HBS	SE	EH/HB	(FT / HR)	Date	(CO.VD.)	(CO. YD.)	(.01.02)	20.10.	
Date	#	Medica												
07/24/93	N	DHD130A	140		10.09		13.88		02/26/93			22	32.7	74.4%

10.09 Hours 13.88 Feet / Hour

Total Drill Time = Average Penetration Rate =

Total Redrill Time = Average Penetration Rate =

Verticality Information

1.75' N X O' E/W 27.78 27.80

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 351

Area "A"

		A transfer	Overbreak		17.8%	
	Theoretical	M-L	ON IN	אמיומיו	32.7	
	Spec		Concrete	70.70	38.5	
TRUCTION	Non-Snec	1000	Concrete	(00.10)		
WALL CONS			Grout	(CO.TD.)		
ICUT-OFF		7	Concrete	Cate	08/11/93	
	-4-	alle		(FI / HH)		
		Penetration r		(FT/HR)	16.97	
			Redrill	(HRS)		
	10. 30	Pare Drill Inde	Orill	(HRS)	8.25	
			Redrill	E		
MUL	1011	Drill Footage	Drill	Œ	140	
SEE WALL EYCAVA	A I WALL LADAY	+	Excavation	Method	DHD130A	
		Follower	Rig	*	3 2	
			Drilling	Date	08/11/93	

Total Drill Time = Average Penetration Rate =

8.25 Hours 16.97 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

2.5" N X .75" E 27.80 28.04 Verticality Information

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 352 Area "A"

	CUT-O	FF WALL EXCAVA	TION						CUT-OFF V	VALL CONS	TRUCTION			
	Fortibuent	4	Drill Footage		Pure Drill Time		Penetration Rate	te			Non-Spec.	Spec.	Theoretical	
Drilling	Rig	Δ,		Redrill	Drill	Redrill	Drill (a)	Redrill (12)	Concrete	Grout	Concrete	Concrete	Volume (CLI YD.)	Overbreak
Date	*	Method	(1)	Ē	(SEE	(CHL)	(LI / LIN)	MU / LA	Caro	20.00				
02/22/70	2	DHD130A	140		10.92		12.82		07/23/93			75	32.7	129.4%
								A	4	4				

Total Drill Time == Average Penetration Rate ==

10.92 Hours 12.82 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

3.5' N X 2.75' E 28.04 22.76 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments: Hit a cavity 23-24' deep. Hole collapsed and had to be cleaned out.

Primary Pile # 353 Area "A"

	cut-o	FF WALL EXCAVA	ATION						CUT-OFF V	VALL CONS	TRUCTION			
	Fourment	-	Drill Footzage		Pure Drill Time		Penetration Rate	nte			Non-Spec.	Spec.	Theoretical	
Drilling	Ria	Excavation	Drill	Redrill	III.O	Redrill	Drill	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
Date	. *	Method	<u>_</u>	Ē	(HRS)	(HRS)	(FT/HR)	(FT/HR)	Date	(CU.VD.)	(CU.YD.)	(CU.YD.)	(CU.YD.)	
08/12/93	2	DHD130A	. 140		11.15		12.56		08/13/93			37	32.7	13.2%

Total Drill Time = Average Penetration Rate =

11.15 Hours 12.56 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

1" N X 0" E/W 22.76 23.75 At Full Depth =

S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 354 Area "A"

Spec. Concrete (CU.YD.) Non-Spec. Concrete (CU.YD.) CUT-OFF WALL CONSTRUCTION Grout (CU.YD.) 07/21/93 Concrete Date Redrill (FT / HR) Penetration Rate Drill (FT / HR) 13.88 Redrill (HRS) Pure Orill Time Drill (HRS) 10.09 Redrill (F) CUT-OFF WALL EXCAVATION

CUT-OFF WALL EXCAVATION

Current

Transation

Drill

(FT) 140 DHD130A 8 07/21/93 Drilling Date

43.8%

327

47

Overbreak

Theoretical Volume (CU.YD.)

10.09 Hours 13.88 Feet / Hour

Total Drill Time = Average Penetration Rate =

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

1"SX1"E 23.75 28.16

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 355

Area "A"

	- TeS	American	_		,		32.7 19.3%	
	Theoretical	_	_		╀		88	
	Spec	-	Concrete		22			
STRUCTION	Non-Spec.		Concrete		77.77			
CUT-OFF WALL CONSTRUCTION		,	Grout		(70.10.)			
CUT-OFF			Concrete		Lare		08/17/93	
	540	1	Bedill		(FI/HH)			
		Perlettation hate	Drill		ET / HR		14.74	
		•	Radrill		(SHES)			
	U	Pure Unil Ime	i c	5	(SHE)		9.50	
		•	Dodail		E			
ATION		Drill Footage	-	5	٤		140	
VEE WALLEY EVEN	JET WALL LAUNS	14	1	Excavation	Method	No.	DHD130A	
+10		Editione		웃	, *	*	2	
					0.00	Dale	08/16/93	

Total Drill Time = Average Penetration Rate =

9.50 Hours 14.74 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

0"N/S X 1" E 28.16 26.73 Verticality Information

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 356 Area "A"

Equipment Excavation Drill Drill Redrill Time Paretration Rate Paretration Rate Paretration Rate Paretration Profile		CIT-C	DEF WALL EXCAVA	ATION						CUT-OFF V	VALL CONS	TRUCTION			
Fig. Excavation Drill Redrill Drill Concrete Grout Concrete Courcrete	- Janier	1	Drill Footage		E		Penetration Rat				Non-Spec.	Spec.	Theoretical		
#3 Method (FT) (HRS) (HRS) (FT/HR) (FT/HR) (FT/HR) (CU.YD.) (CU.YD.) (CU.YD.) K3 2 DHD130A 47 3.75 11.84 2.17 7.85 21.66 07/20/93 46	Drilling	Rid	,	Drill	Redrill	Drill	Redrill	Duil		Concrete	Grout	Concrete	Concrete	Volume	Overbreak
3,75 2 DHD130A 47 3,75 12.53 02/01/93 16 16 17 85 21.66 07/20/93	Date	*	Method	Ē	Œ	(HRS)	(RRS)	FT/HR)	_	Date	(CU.YD.)	(CU.YD.)	(CU.XD.)	(CU:YD:)	
2 DHD130A 47 11.84 2.17 7.85 02/01/93 16															
2 DHD130A 140 47 11.84 2.17 7.85 21.66 07/20/93	01/29/93	8	DHD130A	47		3.75		12.53		02/01/93		16		11.0	45.8%
Z UNDIGUE		•		•			0 47	7 95	24.68	07/20/03			9	20.7	22.4%
	07/20/93	2	_	3	Ì		7.7	3	3	01/20/20					

Total Drill Time = Average Penetration Rate =

15.59 Hours 8.98 Feet / Hour

Total Redrill Time = Average Penetration Rate =

2.17 Hours 21.66 Feet / Hour

At Full Depth = Verticality Information

O" N/S X O" E/W 26.73 22.17

S-ARC North = S-ARC South =

Quality Coring: Cavity

Comments:

Primary Pile # 357 Area "A"

13.2% Overbreak 327 Theoretical Volume (CU,YD.) 37 Spec. Concrete (CU.YD.) CUT-OFF WALL CONSTRUCTION
Concrete Grout Concrete
Date (CU.YD.) 08/19/93 Redrill (FT / HR) Penetration Rate Drill (FT / HR) 15.86 Redrii (SE Pure Drill Time Drill (HRS) 8.83 Redrill (F) Drill Footage Drill (FT) 4 CUT-OFF WALL EXCAVATION Excavation DHD130A quipment Rig 2 08/18/93 Drilling Date

Average Penetration Rate = Fotal Drill Time =

8.83 Hours 15.86 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

3"S X .5"E At Full Depth =

22.17 30.79

S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 358 Area "A"

	7117	CHT_OFF WALL EXCAVA	NOIT						CUT-OFF	WALL CONS	TRUCTION			
		JET WALL LAUNT	100								Mon Cnoo	Choc	Theoretical	
	Equipmen	1	I Drill Footage		Pure Drill Time		Penetration Hate	are .			Mail Spar.	3		
									-	4	Commond	Contractor	Omiso)	Noort-rook
	G	Evenuation		Redrill		Redri	5	Hedri	Concrete	105	COLICIERE	CONTRACT	0	NEO!O!O
5	5	- Company		į	100.0	10010	Į,	(dn/ La)	Cate				(CO.AD.)	
Date C	*	Method		<u>=</u>	(HHZ)	2	ALL LUN	(uu)	Date	20.00	100.			
2000														
07/14/93	0	DHD130A	140		10.50		13.33		07/14/93			S	32.7	59.1%

10.50 Hours 13.33 Feet / Hour

Total Drift Tirne = Average Penetration Rate ≈

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

At Full Depth = S-ARC North = S-ARC South =

0" N/S X 0" E/W 30.79 26.76

Quality Coring: None.

Comments:

Primary Pile # 359

Area "A"

П	Spec. Theoretical	(CU YD.) (CU YD.)	-	37 32.7 13.2%	
CONSTRUCTION		oncrete Concrete	┞		
UT-OFF WALL	_	Concrete Grout	-	08/22/93	
0		Redrill		, _	
	Penetration Rate		1	18.25	
	Time	Redrill	2	79.7	
	Pure Drill T	Dilli G	QUE.		
		Redrill		_	
ATION	Drill Footage	E	(E)	140	
SEE WALL EXCAVA	-t	ă	Method	DHD130A	
	Fortinmen	Rig	*	2	
		Drilling	Date	08/21/93	

Total Drill Time = Average Penetration Rate =

7.67 Hours 18.25 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

At Full Depth = S-ARC North = S-ARC South = Verticality Information

0" N/S X 0" E/W 26.76 29.47

Quality Coring: None.

Secondary Pile # 360 Area "A"

Drilling Light Ligh		C-TIT-O	FF WALL EXCAVA	TION						CUT-OFF W	-OFF WALL CONSTRUCTION	TRUCTION			
High Excavation Drill Redrill Drill Fledrill Drill Dri		-dummen		Drill Footage		_		Penetration Rai				Non-Spec.	Spec.	Theoretical	
# Method (FT) (HRS) (HRS) (FT/HR)	Drilling	Rid		Drill	Redrill	_		Drill	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
1 DHD130A 51 29 1.56 1.00 13.25 29.00 03/11/93 22 11.9 6.8 11.9 6.8 1.00 13.25 29.00 03/11/93 22 11.9 6.8 11.9 6.9 13.2 22.9 14.0 6.5 2.83 9.89 22.97 07/19/93 38 32.7	Date	*	Method	(FI)	(FT)	(HRS)	(HRS)	(FT/HR)	(FT/HR)	Date	(CU.YD.)	(CU.YD.)	(CO.YU.)	(CO.YD.)	
11.9 DHD13QA 51 29 1.66 1.00 13.25 29.00 03/11/93 29 11.9 11.9 11.9	03/01/93	-	DHD130A	83		1.50		19.33		03/01/93		7		8.9	3.4%
15.2 DHD130A 65 51 0.50 0.67 28.00 76.12 04/21/93 29 15.2 DHD130A 140 65 7.58 2.83 9.89 22.97 07/19/93 38 32.7	03/11/93	_	DHD130A	51	83	1.66	1.00			03/11/93		83		11.9	84.7%
2 DHD130A 140 65 7.58 2.83 9.89 22.97 07/19/93 38 32.7	04/20/93	_	DHD130A	æ	5	0.50	0.67					83		15.2	91.1%
	07/17/93	N	DHD130A	140	æ	7.58	2.83			07/19/93			88	32.7	16.2%

11.24 Hours 12.46 Feet / Hour

Total Drill Time = Average Penetration Rate =

4.50 Hours 32.22 Feet / Hour

Total Redrill Time = Average Penetration Rate =

Verticality Information

At Full Depth = S-ARC North = S-ARC South =

2.09" N X 2.09" E 29.47 27.56

Quality Coring: None.

Comments:

Primary Pile # 361 Area "A"

	CUT-0	JEF WALL EXCAVA	VITION						CUT-OFF W	VALL CONS	TRUCTION			
	Fournmen	=	Drill Footage		Pure Drill Time		Penetration Rate	te			Non-Spec.		Theoretical	
Drilling	Rigin	Excavation	Drill	Redrill	Drill	Redrill	Drill	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
Date	*	Method	Œ	Œ	(HRS)	(HRS)	(FT/HR)	(FH) FE	Date	(cu.vb.)	(CU.VD.)		(CO.YD.)	
08/16/93	2	DHD130A	140		7.75		18.06		08/17/93			39.5	32.7	20.8%

Total Drill Time = Average Penetration Rate =

7.75 Hours 18.06 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

3'NX2'W At Full Depth = S-ARC North = S-ARC South =

27.56

Quality Coring: None.

Secondary Pile # 362 Area "A"

		Overbreak		33.1%
	Theoretical	Volume	(CU.YD.)	32.7
	Spec.	Concrete	(CU.YD.)	43.5
TRUCTION	Non-Spec.	Concrete	(CU.YD.)	
CUT-OFF WALL CONSTRUCTIC		Grout	(CU.YD.)	
CUT-OFF		Concrete	Date	07/01/93
	ı	Redrill	(FT / HR)	
	Penetration Rate	Dilli O	(FT / HR)	17.68
		Redrill	(HRS)	
	Pure Drill Time	Drill	(HRS)	7.92
		Redrill	Œ	
ATION	Drill Footage	Dill	Ē	140
FF WALL EXCAVA	-	Excavation	Method	DHD130A
CUT-0	Equipment	Rici	? *	-
		Drilling	Date	07/01/93

7.92 Hours 17.68 Feet / Hour

Total Drill Time = Average Penetration Rate =

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

2.5" N X 3" E 25.30 22.92 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 363 Area "A"

		Overbreak		19.3%
	Theoretical	Volume	(CU.YD.)	32.7
	Spec.	Concrete	(CO.YD.)	88
STRUCTION	Non-Spec.	Concrete	(CU:VD)	
CUT-OFF WALL CONSTRUCTION		Grout	(CU.YD.)	
CUT-OFF		Concrete	Date	08/07/93
	ıte	Redrill	(FT / HR)	
	Penetration Rate		(FT/HR)	19.07
		Redrill	(HRS)	
	Pure Drill Time	Dill	(HRS)	7.34
		Redrill	E	
ATION	Drill Footage	Diil	٤	140
FF WALL EXCAV	-	Excavation	Method	DHD130A
CUT-0	Equipmen	Bi	**	2
		Drilling	Pate	£6/90/80

Total Drill Time = Average Penetration Rate =

7.34 Hours 19.07 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

0" N/S X 1.5" E 22.92 27.28 At Full Depth = S-ARC North = S-ARC South = Verticality Information

Quality Coring: None.

Secondary Pile # 364 Area "A"

	CITTO	FE WALL EXCAVA	NOIL						CUT-OFF V	VALL CONSTRU	TRUCTION			
		***	Drill Footage		Pure Drill Time		Penetration Rate	9.			Non-Spec.	Spec.	Theoretical	
D. History	Die Cia	Evocation	Drill	Redrill		Redrill	Drill	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
g at	₽#	Method	Œ	E	(HRS)	(HRS)	(FT/HR)	(FT/HR)	Date	(CU.YD.)	(CU.YD.)	(CU:VD:)	(CU.YD.)	
Caro														
03/02/93	-	DHD130A	45		2.50		18.00		68/60/60		10		10.5	-4.8%
					1	,,		77	07/07/00			40.5	702	23 9%
07/07/93	0	DHD130A	140	3	10.75	2.17	9.0	8.7	26/10/10			2	į	

13.25 Hours 10.57 Feet / Hour

Total Drill Time = Average Penetration Rate =

Total Redrill Time = Average Penetration Rate =

2.17 Hours 20.74 Feet / Hour

Verticality Information

.5" N X 1" W 27.28 28.16

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 365

Area "A"

7	Spec. Theoretical	efe Concrete volume Overpress D.) (CU.YD.) (CU.YD.)	L	38 32.7 16.2%
CUT-OFF WALL CONSTRUCTION		refe Grout Concrete fe (CU.YD.) (CU.YD.)		08/02/93
-TUO	n Rate	Drill Redrill Concrete		12.64 08
	ure Drill Time Pen	Drill Redrill	200	11.08
TION	Drill Footage	Drill Redrill	(1.1)	140
T-OFF WALL EXCAVA	nioment	lig Excavation	# Memod	2 DHD130A
2	Equi		Date #	08/02/93

Total Drill Time = Average Penetration Rate =

11.08 Hours 12.64 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

1.5" N X 1" W 28.16 24.53 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 366

Area "A"

•	110	ALL MAIN CONTAINA	TION						CUT-OFF WALL CONSTRUCTION	VALL CONS	TRUCTION			
	20	シャト マイト にくしょう	201								Alon Chan	Cana	Theoretical	
		-	Drill Ecotogo		Pure Drill Time		Penetration Hate	9			MOI STORY	3		
		-					: (-	-	1	Concrete		Votime	See Bear
Drilling	Rid	Excavation	Drill	Redrill		Redrill	5		Concrete				(CU.YD.)	
250	*	Method	<u>E</u>	Œ	(ERRS)	(HRS)	(FI / HH)	(FI / HR)	Lale	20.10.	20.00			
Dale	#	No.												
06/22/93	-	DHD130A	141		11.75		12.00		06/26/93			8	82.9 82.9	100.4%

11.75 Hours 12.00 Feet / Hour

Total Drill Time = Average Penetration Rate =

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

0" N/S X 2" W 24.53 23.79 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments: Hole collapsed and had to be cleaned out.

Primary Pile # 367

Area "A"

	Spec. Ineoretical	Tule Dill Title	Pedrill Drill Redrill Online Francisco Constituto Constituto (CU.YD.) (CU.YD.) (CU.YD.)	(FL/ DR) (FL/ DR) Dave	50A 140 9.59 14.60 07/30/93 37 32.7 13.2%	
NON	Duit Probago	Unil Footage		(FI	140	
NIT OFF WALL FYCAVA	מארה דאסע וויס	quipment	Rig Excavation	# Method	2 DHD130A	
			Drilling	Date	02/30/93	

Total Drill Time = Average Penetration Rate =

9.59 Hours 14.60 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

2"S X 2.27" W 23.79 27.65

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 368

Area "A"

	1	THE LEVEL I CAN AVI	ATION						CUT-OFF WALL CONSTRUCTION	VALL CONS	TRUCTION			
		TE WALL EACAY	101								Non-Chec	Supr	Theoretical	
	100000		Drill Footage		Pure Drill Time		Penetration Hate	te			MOI Shore			A. T. T.
	T dnibilida	1		Ī	=======================================	- Dodg	11.50	Badrill	Concrete	Grant	Concrete	Concrete	Nomme	CVerbiesex
Drilling	Ŗġ	Excavation	5	Hedri	5		1 t		940	2	(A)	(CU.ND)	(CU.YD.)	
Pate	*	Method	E	Œ	(HRS)	SHT.	LI / UH)	ובו / וווו	Calc	200				
Dalo													1	
					27.0		1262		08/15/93		8		21.5	%9.79
06/15/93	-	DHD130A	86		0.73		3		2000					
						1			001000			2	20.0	18.4%
06/00/03	-	DHD130A	141	8	3.17	5.50	15.46	16.73	36/27/90			3	Ì	
20100														

Total Drill Time = Average Penetration Rate =

9.92 Hours 14.21 Feet / Hour

5.50 Hours 16.73 Feet / Hour

Total Redrill Time = Average Penetration Rate ==

Verticality Information

1.25" S X 0" E/W At Full Depth = S-ARC North = S-ARC South =

Quality Coring: 6" Joint core 29.9' deep on 10/28/93.

Comments:

Primary Pile # 369 Area "A"

	_		Concrete Volume Overpress			38 32.7 16.2%	
CUT-OFF WALL CONSTRUCTION		1000	Grout Concrete ((CC:AD)			
CUT-OFF W/			Concrete	Date	200	08/04/93	
		- 1	Redrill	MH/TH/	+	16.47	
		Penetration Hate	iio ==	(01/10)		16	
		e Drill Time	Drill	_	(CHIN)	8.50	
		Pur	Redrill	ţ	(FI)		
ATION	1010	Drill Footage	Dial.		E	140	
CE WALL EYOAV	LE VACEL LACAN	1	Committee	LACAVAILMI	Method	DHD130A	
+10	3	Common	- Company	Di L	#	3	
				Bulling	Date	08/04/93	

Total Drill Time = Average Penetration Rate =

8.50 Hours 16.47 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

1.09" N X 2.27" E 29.68 27.44

Verticality Information

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: See pile 368

Secondary Pile # 370 Area "A"

£	11.0	FE WALLEYCAW	MOIT						CUT-OFF V	WALL CONS	STRUCTION			
	7-100	TE WALL EACH	Orill Ecopada	ſ	Pure Orill Time		Penetration Rate	ife			Non-Spec.	Spec.	Theoretical	
4	Hamding	1	Dill I ways						Comment	*******	Concrete	Concrete	Volume	Cyeroreax
Drilling	Rig	ă		Redrill		Hedrill		(ET / HB)	Date		(CU.YD.)	(CU.YD.)	(CU.YD.)	
Date	*	Method	(FI)	(<u>F</u>	(HE)	SUL	(LI / LID)		200					
00/100	•	DHD130A			8.		16.94		03/01/93		O		7.2	24.3%
28/10/20	-						1				7		11.9	17.6%
03/12/93	-	DHD130A	51	હ	0.41	3.00	48.78	10.55	03/12/30					
06/17/93	-	DHD130A	140	51	8.75	3.16	10.17	16.14	06/11/93			41	32.7	25.4%

10.99 Hours 12.74 Feet / Hour

Total Drill Time = Average Penetration Rate =

6.16 Hours 13.31 Feet / Hour

Total Redrill Time = Average Penetration Rate =

Verticality Information

1.5" N X 3" E 27.44 29.74 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments: Cavity observed 25-45'.

Primary Pile # 371 Area "A"

		A section of	September 5			16.2%	
	Theoretical		e E III	(CU,YD.)		32.7	
	Char	100		CCLVD		38	
TRUCTION	Non-Coo	de spec	Concrete	CLAN			
CUT - OFF WALL CONSTRUCTION			-		20.00		
CUT-OFF			Contraction of the last	Concrete	CIEVI	08/02/33	
		afe	-	Hedrif (ונו / ונו		
		Penetration Hate			(FI / HR)	19.31	
				Redri	(HHS)	•	
		Pure Drill Time	١		(HRS)	7.25	
				Redrill	E		
MICH	1011	Drill Footbade		Drill	E	140	
CENANT EVEN	TH WALL EACHY			Excavation	Method	DHD130A	
1	2	1		F.	*	2	
				Drilling	Date	08/02/33	

Total Drill Time = Average Penetration Rate =

7.25 Hours 19.31 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

3.78" N X 1.26" E At Full Depth =

29.74 S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 372 Area "A"

	CUT-0	FF WALL EXCAVA	TION						CUT-OFF WALL CONSTRUCTION	VALL CONS	TRUCTION			
	Fouribmen		Drill Footage		Pure Drill Time		Penetration Rate	te			Non-Spec.	Spec.	Theoretical	
Orilling	Rig	Ŋ.	III (Redrill	Drill	Redrill		Redrill	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
Date	#	Method	(F)	(F1)	Q Q	(CHH)	(11/11)	MU/ILI	rate	20.10.	20.00	1001	100.00	
6/12/93	-	DHD130A	140		11.24		12.46		06/12/93			47	32.7	43.8%

Total Drill Time = Average Penetration Rate =

11.24 Hours 12.46 Feet / Hour

Total Redrill Time = Average Penetration Rate =

Verticality Information
At Full Depth =
S-ARC North =
S-ARC South =

.5"NX.79"E 21.79 32.63

Quality Coring: None.

Comments:

Primary Pile # 373 Area "A"

	CUT-O	FF WALL EXCAVA	ATION						CUT-OFF WALL CONSTRUCTION	ALL CONS	TRUCTION			
	Fouribment		Drill Footage		Pure Drill Time		Penetration Rate	9			Non-Spec.	Spec.	Theoretical	
Drilling	Big	Excavation	Dell	Redrill	Drill	Redrill	Drill	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
Date	*	Method	Œ		(HRS)	HRS	FT/HB	(FT / HR)	Date	(CU.YD.)	(CU.YD.)	(CU,YD.)	(CU.YD.)	
26/60/80	2	DHD130A	140		8.75		16.00		08/09/93			38.5	32.7	17.8%

Total Drill Time = Average Penetration Rate =

8.75 Hours 16.00 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

5" N X 0" E/W 32.63 29.68 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 374

Area "A"

	OFF WALLEYOAVA	NOIT						CUT-OFF WALL CONSTRUCTION	VALL CONS	HUCHON			
1	JEL WALL LAUNA			ŀ						Non-Snec	Spec.	Theoretical	
2	nipment	Drill Footage		Pure Unil Ime		Penetration hate	9			العراب ما		Mahama	Jane American
= 1	Ţ,	Ē	Redrill	Original	Redrill	Onill FT / HB	Redrill FT / HB	Concrete	Grout CU.YD.)	Concrete (CU.YD.)	(CU.YD.)	(CU.YD.)	Overbieerk
	Method	(1)	Į.	2	2								
	1 DHD130A	50		2.16		23.15			ns	SUMP		11.7	-100.0%
	1 DHD130A	141	S	10.00	3.50	9.10	14.29	06/10/93			61	329	85.3%
1													

Total Drill Time = Average Penetration Rate =

12.16 Hours 11.60 Feet / Hour

3.50 Hours 14.29 Feet / Hour

Total Redrill Time = Average Penetration Rate =

Verticality Information

7.58" N X 4.08" W

23.68 23.68 At Full Depth = S-ARC North = S-ARC South = Quality Coring: Used as a sump for 3 months.

Comments:

Primary Pile # 375

Area "A"

		Section 1	Overbreak		22.4%	
	Theoretical		(CU,YD.)		32.7	
	200	4	Concrete		40	
TRUCTION	Non-Spec	101-000	Concrete	200		
WALL CONSTRUCTION			Grout	20.10.		
CUT-OFF W/			Concrete	Cale	08/11/93	
		ate	Redrill	(F1 / HH)		
		Penetration Hate	Drill	(FI / HH)	13.33	
		6	Redrill	(HHZ)		
		Pure Drill Time	Drill	(HRS)	10.50	
			Redrill	Œ		
NOITA		Orill Footbade	Drift	(E)	140	
EE WALLEYCAV	TI WALL LADAY		Excavation	Method	DHD130A	
FIG	2	For immen	Rig	*	2	
			Drilling	Date	08/11/93	

Total Drill Time = Average Penetration Rate =

10.50 Hours 13.33 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

4.78" N X 1.5" W At Full Depth = S-ARC North = S-ARC South =

22.34

Quality Coring: None.

Secondary Pile # 376

Area "A"

	1	SEE MAIL EVENAVA	HON						CUT-OFF V	WALL CONS	TRUCTION			
	7	JET WALL CAUMY			Dura Drill Tima		Panetration Rate	ē			Non-Spec.	Spec.	Theoretical	
	Fourthmen	1	Dull rootage		اء			T		•		- The state of the	Votimo	Acompton of
Drilling	Ë	Excavation	Diil	Redrill	- E	Redrill	- E	Redrill	Concrete	Grout	Concrete	Series de la constante de la c	A COLLING	CVOIDIGAL
	? 4	Mathod	(F)	Œ	(HRS)	(HRS)	(FT / HR)	(FT / HR)	Date	(CU.VD.)	(CU.YU.)	(CU,YU.)	CO.TD.)	
Dale	*	None in												
06/24/93	-	DHD130A	141		9.58		14.72		06/24/93			8	32.9	-2.8%

9.58 Hours 14.72 Feet / Hour

Total Drill Time = Average Penetration Rate =

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

O" N/S X 6" W 18.43 28.79

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 377

Area "A"

Т			I	_		
		Overbreak			16.2%	
	Theoretical	Volume	(CU.YU.)		32.7	
	Spec.	Concrete	(CO. VD.)		88	
RUCTION	Non-Spec.	Concrete	(CU:VD:)			
CUT-OFF WALL CONSTRUCTION		Grout	(CU.YD.)			
CUT-OFF		Concrete	Date		08/12/93	
	ate	Redrill	(FT / HR)			
	Penetration Rate	Drill	(FT/HB)		15.42	
		Redrill	(HRS)			
	Pure Drill Time	Diil	HRS		90.6	
		Redrill	E			
TION	Drill Footage	Drill	£		140	
FF WALL EXCAVA		Excavation	Method	Monitor	DHD130A	
CITTO	Company	Dio	2 4	#	2	
		Crilling	2	Dale	08/12/93	

Total Drill Time = Average Penetration Rate =

9.08 Hours 15.42 Feet / Hour

Total Redrill Time = Average Penetration Rate ==

None

Verticality Information

1.5" N X 5" W 28.79 20.47 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 378 Area "A"

		PEF WALL EXCAV	NOITA						CUT-OFF V	VALL CONS	TRUCTION			
		*	Drill Footage		Pure Drill Time		Penetration Rate	te			Non-Spec.	Spec.	Theoretical	
Drilling	Rid	Excavation	Drill	Redrill		Redrill	Drill	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
Date	*	Method	(FI)	Œ	(HRS)	(HRS)	(FT/HP)	(FT/HP)	Date	(CU.YD.)	(CU.YD.)	CO.TU.)	(CO.TD.)	
													4	704 407
03/10/93	-	DHD130A	99		4.00		16.25		03/10/93		24.0		3.6	84.10
	•	40070110	•	ų	0.75	3 33	7 79	19.52	07/00/93			47	32.9	42.7%
07/02/93		DHD130A	141	3	2	3								

Total Drill Time = Average Penetration Rate =

13.75 Hours 10.25 Feet / Hour

3.33 Hours 19.52 Feet / Hour

Total Redrill Time = Average Penetration Rate =

Verticality Information

2.5"S X 4.78W 20.47 29.84

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 379 Area "A"

CUT-OFF WALL CONSTRUCTION	on Rate Non-Spec. Spec. Theoretical	He Redrill Concrete Grout Concrete Concrete Volume Overpreak		14.86 08/17/93 32.7 19.3%	
	Penetration	Drill Redrill Drill	2	9.42	
NOIL	Drill Footage Pu	Drill	(1.1)	140	
IIT-OFF WALL EXCAVA	niinment	2.	# Method	2 DHD130A	
<u>C</u>		Drilling	Date	08/17/93	

Total Drill Time = Average Penetration Rate =

9.42 Hours 14.86 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

0" N/S X 1.5" W 29.84 25.50 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 380 Area "A"

•									CUT-OFF WA	VALL CONS	TRUCTION			
	0-100	OFF WALL EXCAVA	ION								Man Canada	Spoo	Thoroginal	
			Drill Footbade		Jure Drill Time		Penetration Rate				Non-spec.	3000	i i i i i i i i i i i i i i i i i i i	1
			2000		19	l	====	Dodrill	Constate	-	Concrete	Concrete	Noume	September
Drilling	E.E.	Excavation	Ē	Redrill		Hedri	5		2000			5		
2	2 4	Mathod	Ę.	Œ	HRS)	(HRS)	(FT/HR)	(FI / HH)	Cate	(CO.YD.)	(01.00)	17.17.1	20.00	
Cale	*	Bollon												
	L								00,1000		7		7.5	%E 9-
03/01/03	٠	DHD130A	8		1.75		18.29		28/10/80				2	
2000														1
				Ş	0 0	0	31.87	29.38	06/23/33		25.5		14.2	%5.5V
06/58/33	-	DHD130A	5	Ŋ	5	3	5							
									00,000			A7.5	702	762.57
	,	4007000	140	ĕ	10.50	4.25	7.52	8.4	07/08/93			?	3	200
07/07/93	_	ADSIDED.	2	5										

Average Penetration Rate = Total Drill Time =

13.16 Hours 10.64 Feet / Hour

Total Redrill Time = Average Penetration Rate =

5.34 Hours 17.42 Feet / Hour

Verticality Information

.75" S X 1" E 25.50 31.67 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 381 Area "A"

	11.0	AVALLE EVONAV	ITION						CUT-OFF V	WALL CONSTRUCTION	TRUCTION			
		THE WALL EACHY	201								Man Coop	Choc	Theoretical	
	Common	4	Drill Footage		Pure Drill Time		Penetration Rate	9			NOT - Spec.	3	W-Firm	Jonethan C
				I			-	Time C	Constitution	-	Concrete	Concrete	Nomine	1800 BA
Drilling	Rid	Excavation	- Dull	Redrill		Hedrill			COLCIER OF				(CU.YD.)	
Date	9#	Method	Œ	(F)	(HRS)	(HRS)	(FI / HH)	(FI / HH)	Date	707.00	200.100	20.00		
08/20/93	2	DHD130A	140		6.33		22.12		08/21/93			88	32.7	16.2%

6.33 Hours 22.12 Feet / Hour Total Drill Time = Average Penetration Rate =

None Total Redrill Time = Average Penetration Rate =

Verticality Information

3"NX.5"W 31.67 22.87 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments: Connected with pile408

Secondary Pile # 382 Area "A"

		AVA 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	TION						CUT-OFF V	VALL CONS	TRUCTION			
	2-23	THE WALL EXCAVE	201	-							22.0	Coco	Thornotival	
	Continuon	*	Drill Footage		Pure Drill Time		Penetration Hate	ite			Non-spec.	3000	THE CHARGE	1
	Dia	Everation	Diil	Redrill	Drill	Redrill	Diril	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Cverbreak
	£ 4	Mathod	(E	HRS	(HRS)	(FT / HR)	(FT/HP)	Date	(CU.YD.)	(CU.YD.)	(CU.YD.)	(CU.YU.)	
Date	*	Menico												
06/30/03	-	DHD130A	19		1.75		34.86		06/00/90			24	14.2	68.5%
											_	3	7.00	OF 400
07/09/93	2	DHD130A	140	61	7.42	3.50	10.65	17.43	07/10/93			7	Se Se	

Total Drill Time = Average Penetration Rate =

9.17 Hours 15.27 Feet / Hour

Total Redrill Time = Average Penetration Rate =

3.50 Hours 17.43 Feet / Hour

Verticality Information

.5" N X 1.5" E 22.87 28.09

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 383

Area "A"

		Jumphus C	OVERDICER			7.1%	
	Theoretical	Web in	Aorina	(CU.YU.)		32.7	
	Spec		Concrete	(CU.YD.)		35	
TRUCTION	Non-Spec	10000	Concrete	(CU.YD.)			
WALL CONS		,	Grout	(CC:YD:)			
ICUT-OFF			Concrete	Date		08/24/93	
		1	Redrill	(FT / HR)			
		Penetration rate		(F) HB		14.29	
		•	Redrill	(HDC)	2		
	и.	Pure Unil Ime	E C	ADO	2	9.80	
			Redrill	Ę			
MOIT		Drill Footage	ii.c	E	(1)	140	
CEMAIL EYCAVI	TE WALL LACAY		Evenation	- Free Park	Method	DHD130A	
H	5	uamuii io-	200	27	#	2	
-				5	Date	08/23/93	

Total Drill Time = Average Penetration Rate =

9.80 Hours 14.29 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

1.5" N X 0" E/W 28.09 24.56 At Full Depth = S-ARC North = S-ARC South = Verticality Information

Quality Coring: None.

Secondary Pile # 384 Area "A"

		AVA OVER 1 1919 FIRE	TION						CUT-OFF W	VALL CONS	TRUCTION			
	2 2 2 2	THE WALL EACHY	201								Non-Sper	Spec	Theoretical	
	, marine		Drill Footage		Pure Drill Time		enetration Hate	- 1			Topoco.		Vetime	American C
	Edulpine		200		7		11.50	11200	Concrete	Grant	Concrete	Concrete	ACMUTIE	
Drilling	Rig	Excavation	Ē	Redrill					Date		(CU.YD.)	(CU.YD.)	(CU.YD.)	
Date	*	Method	Œ	(FI)	(HHS)	CHE	ווו / וווו	A	2					
									-		8		13.8	20.5
03/03/93	-	DHD130A	8		5.41		10.91		03/04/93		3		2	3
								10 01	20140100		4		15.2	5.4%
03/11/93	-	DHD130A	8	6 2	0.25	0.75	24.00	/0.0/	2017		2			
							;		00/17/100			43	7.05	31.5%
07/16/93	0	DHD130A	140	85	9.25	3.75	8.11	17.33	28/11/10			}		
2000														

Total Drill Time =

14.91 Hours 9.39 Feet / Hour

Average Penetration Rate =

4.50 Hours 27.56 Feet / Hour

Total Redrill Time = Average Penetration Rate =

0" N/S X 0" E/W 24.56 22.16 At Full Depth = Verticality Information

S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 385 Area "A"

16.2% Overbreak 32.7 Theoretical Volume (CU.YD.) 8 Spec. Concrete (CU.YD.) CUT-OFF WALL CONSTRUCTION
Concrete Grout Concrete
Date (CU.YD.) (CU.YD.) 08/31/93 Concrete Date Redrill (FT / HR) enetration Rate Drill (FT / HR) 31.75 Redrill (HRS) Oure Drill Time Drill (HRS) 4.41 Redrill (FT) Drill Footage Drill (FT) 45 CUT-OFF WALL EXCAVATION Excavation 240 quipment Rig 8 08/30/93 Drilling Date

Total Drill Time = Average Penetration Rate =

4.41 Hours 31.75 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

3"SX1"W 22.16 27.99 At Full Depth =

S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 386 Area "A"

77.4% Overbreak 32, Theoretical Volume (CU.YD.) 8 Spec. Concrete (CU.YD.) Non-Spec. Concrete (CU.YD.) CUT-OFF WALL CONSTRUCTION Grout (CU.YD.) 07/14/93 Concrete Date (FT/HR) 9.18 (FT / HR) Redrill (HRS) Pure Drill Time Drill (HRS) 15.25 Redrill (FT) Drill Footage Drill (FT) 5 CUT-OFF WALL EXCAVATION Excavation **DHD130A** Equipment Rig 07/13/93 Drilling Date

Average Penetration Rate = Total Drill Time =

15.25 Hours 9.18 Feet / Hour

Total Redrill Time = Average Penetration Rate =

Verticality Information

2"S X 1.25"E 27.99 25.15

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 387 Area "A"

CUT-OFF WALL CONSTRUCTION	Non-Spec. Spec. Theoretical	Concrete Grout Concrete Concrete Volume Overpreak		37.5 32.7 14.7%	
	Pure Drill Time Penetration Rate	Drill Redrill Drill	2	7.59 18,45	
FE WALL EXCAVATION	Drill Footage	Excavation Drill Redrill	Method (F1)	DHD130A 140	
O-Tilo	Tomuci 10-	Drilling Rig	Date #	09/13/93	

Total Drill Time = Average Penetration Rate =

7.59 Hours 18.45 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

3"S X 1" W 25.15 30.34 At Full Depth =

S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 388

Area "A"

		Overhreek			117.2%	
	Theoretical	Votimo	(CU.YD.)		32.7	
	Spec.	Concrete	COLVD		71	
STRUCTION	Non-Spec.	Constrato		1000		
WALL CONS		1		20.00		
CUT-OFF			Concrete	Dale	07/15/93	
	afe	ľ	Hedrill	(r1 / nn)		
	Denotration Rate			(FI/HH)	16.00	
			Redrill	(SHE)		
	1=	Lue DIII I IIIo		(HHS)	8.75	
			Redrill	(FI)		
ATION		Drill Footage	Drill	E	140	
EE WALLEYCAV	TE WALL LADAY	-	Excavation	Method	DHD130A	
110	0-100	Eduipmen	Ę	*	2	
			Drilling	Date	07/15/93	

Total Drill Time = Average Penetration Rate =

8.75 Hours 16.00 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

At Full Depth = S-ARC North = S-ARC South =

Verticality Information

o" N/S X 2.9" E 30.34 22.18

Quality Coring: None.

Comments:

Primary Pile # 389 Area "A"

		- The state of	Overbreak		16.2%	
	Thornothio	The County	(CU.YD.)		32.7	,
	Come	300	Concrete (CU:YD.)		8	
HUCLION	110	NOT-Spec.	Concrete (CU YD.)			
CUT-OFF WALL CONSTRUCTION			Ground			
CUT-OFF			Concrete	Date	09/15/93	
			Redrill	(11/11/11/11/11/11/11/11/11/11/11/11/11/		
		Penetration Rate		מט/ וגו	28.00	
			Redrill	(CHT)		
		Pure Drill Time		(HRS)	5.00	
			Redrill	(1		
NOIL	100	Drill Footage		(FI)	140	
EE WALL EXCAVA	TATOM TITAL		Excavation	Method	240	
110		Fortingent	Rig	*	2	
			Drilling	Date	09/14/93	

5.00 Hours 28.00 Feet / Hour

Total Drill Time = Average Penetration Rate =

None

Total Redrill Time = Average Penetration Rate =

At Full Depth = S-ARC North = S-ARC South = Verticality Information

2.77"S X .76" W 22.18 30.16

Quality Coring: None.

Secondary Pile # 390 Area "A"

	1	VEE WALL EVEAVA	HON					ř	CUT-OFF W	VALL CONS	TRUCTION			
	200	JEE WALL EACAVE									Non-Coor	Spore	Theoretical	
	Formon	-	Drill Footage		Pure Drill Time		Penetration Hate				NOI-Space	2		
	1000						7	-	Constitution	+	Concrete	Concrete	Volume	See Press
Drilling	Rig	Excavation		Hedrill	5	III DOL	5		2000			5		
Date) #	Method	Œ	Œ	(HRS)	HRS)	(FT/HR)	(FI / HR)	Date	(CU.VD.)	CU.YU.)	CO.TO.	CO.10.	
Sign														
	,	4007	č		1.25		24.80		03/01/93		6		7.2	24.3%
03/01/93		DHUISON	5		3									
			,	č	700	Ç	20.00	16 94	69/66/90		24		11.2	114.1%
06/22/93	_	DHD130A	2	5		3	20.57	5	3		i			
						1		47 AE	00/46/02			41	32.7	25.4%
08/13/93	2	DHD130A	140	48	6.83	2/2	13.4/	?	26/01/00			•	į	
			The Control of the Co											

Total Drill Time = Average Penetration Rate =

8.92 Hours 15.70 Feet / Hour

4.58 Hours 17.25 Feet / Hour

Total Redrill Time = Average Penetration Rate =

.25" S X .75" W 30.16 25.55 Verticality Information

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 391 Area "A"

	1	VEE WALL EVEAVA	MOIT						CUT-OFF WALL CONSTRUC	VALL CONS	TRUCTION			
	200	THE WALL LACAN	100								Marie Care	0000	Thompsting	
	Fortingen		Drill Footage		Pure Drill Time		Penetration Rate				Non-spec.	300	i equalization	
Drilling	1	ă	Drill	Redrill	Drill	Redrill	Drill	Redrill	Concrete	Grout	Concrete	Concrete	Volume (CU YD.)	Overbreak
Date	*	Method	Œ	Œ	(HRS)	(SHE)	(FI / HH)	(11 / 11)	Lale	20.00	20.00			
09/15/93	8	DHD130A	140		71.7		19.53		09/16/93			38	32.7	16.2%
	_		-											

Total Drill Time = Average Penetration Rate =

7.17 Hours 19,53 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

1" S X 1.25" E 25.55 28.07

Verticality Information

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 392 Area "A"

75.9% Overbreak 32.7 Pheoretical Volume (CU.YD.) Spec. Concrete (CU.YD.) CUT-OFF WALL CONSTRUCTION
Concrete Grout Concrete
Date (CU.YD.) (CU.YD.) 08/11/93 Redrill (FT / HR) Penetration Rate Drill 18.47 (FT / HR) Redrill (HRS) Pure Drill Time Drill (HRS) 7.58 Redrill (F) CUT-OFF WALL EXCAVATION

CUT-OFF WALL EXCAVATION

Cotage

Cota 5 DHD130A 07/23/93 Drilling Date

Total Drill Time =

7.58 Hours 18.47 Feet / Hour

Average Penetration Rate ==

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

0" N/S X 3" E 28.07 23.52

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 393

Area "A"

	_	ž		19.3%	
		Overbreak	-		
	Theoretical	Volume (CU.YD.)		32.7	
	Spec.	Concrete (CU.YD.)		88	
TRUCTION	Non-Spec.	Concrete (CU.YD.)			
CUT-OFF WALL CONSTRUCTION		Grout CU YD			
CUT-OFF		Concrete		09/28/93	
	ate	Redrill (FT / HB)	7		
	Penetration Rate	Drill	(LI / LIU)	15.84	
		Redrill	CUL		
	Pure Drill Time	= 6	(HRS)	8.84	
		Redrill	(1)		
NOIT	Drill Footbard	Drill	(F1)	140	
CE WALL EYOAVI	ון אטרר דייייי	Ğ	Method	DHD130A	
FIG		Rig	*	2	
		Drilling	Date	09/28/93	

Average Penetration Rate = Total Drill Time =

8.84 Hours 15.84 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

2"S X O" E/W 23.52 24.54 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 394 Area "A"

		ALL DOOR IN THE STATE OF THE ST	MOIT						CUT-OFF!	IT-OFF WALL CONSTRUCTION	TRUCTION			
		JEE WALL EXCAVE	202									0000	Thornotinal	
	Courinment	ţ	Drill Footage		Pure Drill Time		Penetration Rate	te			Non-spec.	abec.	Vehimo	Australy C
		-	-	Dodeill	Drill	Radrill		Redrill	Concrete	Grout	Concrete	Concrete	AMILIA	CVOIDIGAL
Drilling	DY.	Excavation	5						200		(QX I Z)		(CE/AD)	
9	*	Method	٥	Œ	HRS)	(ZHZ)	T / HK)	בו עווו	Cale	2	20.00	100		
Date	=	Non non												
							5		08/04/03			46	327	40.7%
08/00/83	2	DHD130A	140		10.78		287		20/2/20					
102/00														

Total Drill Time = Average Penetration Rate =

10.78 Hours 12.99 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

3.53"S X O" E/W Verticality Information

At Full Depth = S-ARC North = S-ARC South =

24.54 31.11

Quality Coring: None.

Comments:

Primary Pile # 395 Area "A"

	Portetical	Nethern Combinet	ORDING	(CX)			32.7 16.2%	
			_				8	
CUT-OFF WALL CONSTRUCTION	Non-Chan	NOIL SPOR	Concrete		20.00			
WALL CON			Series de la constitución de la		100			
CUT-OFF			Concrete	2000	Date		09/15/93	
			Dodrill		(F) (F)			
		Penetration Hate	===	5	(FI / HK)		25.83	
			17770	Hedilli	(HRS)			
		Pure Drill Time	-		E ESS		5.42	
				Hedrill	٥			
METIONI	200	Drill Footage	-		Œ		140	
PENANT EVOAVA	THE PARTY OF THE P			Excavation	Method	SIPON	XL-24	
E	S S S	Continuont		P.	*	#	33	
				Drilling	200	Cale	09/14/93	

Total Drill Time = Average Penetration Rate =

5.42 Hours 25.83 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

0"N/S X 3.27"W 31.11 20.69 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 396 Area "A"

	0117-0	FF WALL EXCAVA	MOIT						CUT-OFF V	NALL CONS	TRUCTION			
	Guipmen	-	Drill Footage		Pure Drill Time		Penetration Ra	ıte			Non-Spec.	Spec.	Theoretical	
Drilling	Rid	Excavation	Drill	Redrill	E C	Redrill	Drill	Redrill	Concrete	Grout	Concrete		Volume	Overbreak
Date	n #	Method	Œ	Œ	(HRS)	(HRS)	(FT/HR)	(FT / HR)	Date	(CU.YD.)	(CU.YD.)		(CC:VD)	
									00,000			104	20.7	74 40
08/27/93	2	DHD130A	140		7.25		19.31		08/82/80			200	S S	2
						,			Ì					

7.25 Hours 19.31 Feet / Hour

Total Drill Time = Average Penetration Rate =

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

3.86" S X 4.69" W 20.69 28.39

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 397 Area "A"

		Overbreak	13.2%	
	Theoretical	Volume (CU.YD.)	32.7	
	Spec.	Concrete (CU,YD.)	37	
TRUCTION	Non-Spec.	Concrete (CU YD.)		
WALL CONS		Grout CLI YD		
CUT-OFF WALL CONSTRUCTION		Concrete	09/27/93	
		Redrill FT / HB)		
	Penetration Rate		16.15	
		Redrill		
	Pure Drill Time	Drill	8.67	
		Redrill		
ATION	Drill Footage	<u>F</u>	140	
FF WALL FXCAV		Excavation	DHD130A	
011T-0	Fauipmen	Big.	8	
		Drilling	09/25/93	

Total Drill Time = Average Penetration Rate =

8.67 Hours 16.15 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

2.5°S X 2°W 28.39 26.02 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 398 Area "A"

	hanterical	deritary.	(CU.YD.)		32.7 80.5%	
	_	_	(CU.YD.)		8 8	
WALL CONSTRUCTION	Mon Cnor	Mail Spec	Concrete (CU YD.)			
WALL CON			Grout	100.00		
CUT-OFF V			Concrete	Daio	09/01/93	
		9	Redrill (12)	(UL) (1)		
		Penetration Ha	ling t	(ri / nn)	19.55	
			Redrill	(SHE)		
		Pure Drill Time		(HHS)	7.16	
			Redrill	(EI)		
MOLE	NO.	Drill Footboo	Drill	E	140	
ALVA OVER 1 TAILED	TH WALL EXCAVA		Excavation	Method	DHD130A	
			Rig	*	2	
			Drilling	Date	08/30/93	

Total Drill Time = Average Penetration Rate =

7.16 Hours 19.55 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

3"S X 1" W 26.02 28.13 Verticality Information
At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 399 Area "A"

		James the Control	A DIDION			16.2%	
	Theoretical	_	_	(CU.YD.)		32.7	
	Spec			(CU.YD.)		88	
RUCTION	Non-Snor	indi oper.	00000	(CU.YD.)			
WALL CONSTRUCTION			-				
CUT-OFF			Constitution	Date	Caro	09/23/94	
			77.0		TILL IN		
		Penetration Hate			(בו / חח)	13.77	
		•		Hedrill	QL.		
		Pure Drill Time			(HRS)	10.17	
				Redrill	E		
MULTINON	2012	Drill Footage		iio	Œ	140	
TE WALL EVEN	TATOME TOWN IN			Excavation	Method	DHD130A	
Ŀ		10000		Rig	#	2	
				Drilling	Date	09/23/93	

Total Drill Time = Average Penetration Rate =

10.17 Hours 13.77 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

2"S X 0" E/W 28.13 27.11

Verticality Information

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 400 Area "A"

	1	WALL CVAVA	HON						CUT-OFF WAL	WALL CONS	STRUCTION			
	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	TH WALL EXCAVA	201								Alon-Cnor	Snec	Theoretical	
	900		Drill Footsce		Pure Drill Time		penetration Hate	10			NOT STORY			
			2000		ı.		-	lin Pood	Company	1	Concrete	Concrete	Volume	
Drilling	Pig	Excavation		Redrill		Hedrill			Date	(CA AD)	(CU.YD.)	(CU.YD.)	(CU.YD.)	
Date	*	Method	(FI)	(F)	(ZHZ)	SUL S	(11)		200					
							i		00,00		1		7.2	-3.3%
03/01/93	_	DHD130A	3		1.75		17.71		03/02/93				j.	
											46		140	7 10%
03/10/93	_	DHD130A	\$	31	0.75	0.92	8.4	33.70	03/11/93		2		1.0	
20101100												•	8	A 500
00,00,00	C	DUD430A	140	25	4.25	1.33	17.88	48.12	06/06/63			24	35.7	
S/90/80	7	S C C C C C C C C C C C C C C C C C C C	2	;										

6.75 Hours 20.74 Feet / Hour

Total Drill Time = Average Penetration Rate =

2.25 Hours 42.22 Feet / Hour

Total Redrill Time = Average Penetration Rate =

Verticality Information

1.75" S X .5" W 24.17 30.80

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: 6" Joint core; 400/401; 10/26/93

Comments:

Primary Pile # 401

Area "A"

									CUT-OFF W	WALL CONSTRI	TRUCTION			
	0-10	FF WALL EXCAVA	SON									0000	Theoretical	
	Continuon	+	Orill Footsde		Pure Drill Time		Penetration Rate	te			Non-spec.	apper.	N-Fire	A Townson
Drilling	Rig	o o	Drill	Redrill	Orill	Redrill	Orill	Redriii	Concrete	Grout	Concrete	COL.YD.)	(CU.YD.)	Overbream
Date	#	Method	(F)	(FI)	(HHS)	QH.	(UL) L	(1171II)	Dance	121.00				
09/21/93	2	DHD130A	140		7.92		17.68		09/22/93			39.5	32.7	20.8%

7.92 Hours 17.68 Feet / Hour Total Drill Time = Average Penetration Rate =

None

Total Redrill Time = Average Penetration Rate = Verticality Information

1.25" N X .75" W 30.80 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 402

Area "A"

	CITTO	SEE WALL EXCAVA	MOIL						CUT-OFF WALL CONSTRUCTION	WALL CONS	TRUCTION			
		יון יועריי			F		Description Date	45			Non-Spec	Spec	Theoretical	
	Fourinment	-	Unil Footage		Pure Drill I me		reliciality na	- 1			100		Web	- Transport
Drilling	Bio	Excavation	Dilli	Redrill	Drill	Redrill		Redrill	Concrete	Grout	Concrete	Concrete	Volume	CVerbreak
Date	? * #	Method	Œ	Œ	(HRS)	(HRS)	(FT/HR)	(FT/HR)	Date	(CU.YD.)	(CU.YU.)	(CO.YD.)	(CO.TD.)	
					1		5		20074100		×		14.7	86.69
06/24/93	-	DHD130A	8		1.92		32.01		00/24/30		3			
00/45/00	c	DHD130A	140	8	5.41	3.75	14.23	16.80	09/10/93			41	32.7	25.4%
28/01/80	V		2											

Total Drill Time = Average Penetration Rate =

7.33 Hours 19.10 Feet / Hour

3.75 Hours 16.80 Feet / Hour

Total Redrill Time = Average Penetration Rate =

Verticality Information

0"N/S X 3"W 24.78 33.29

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 403

Area "A"

		1	Overbreak		16.2%	
	Theoretical		(CU.YD.)	1	327	
	Sner	4	Concrete (CU.YD.)		88	
TRUCTION	Non-Choc	NOT OFFICE	Concrete (CU.YD.)			
CUT-OFF WALL CONSTRUCTION			GUYD			
CUT-OFF			Concrete		09/18/93	
		-	Redrill (FT / HB)	7		
		Penetration Hate			17.68	
		60	Redrill	2		
		Pure Drill I me	Drill	211	7.92	
			Redrill	1		
MOITA		Drill Footage	E		140	
EF WALL FXCAV			Excavation	Method	DHD130A	
O IT		Farinment	Rig	#	2	
			Drilling	Date	09/18/93	

Total Drill Time = Average Penetration Rate =

7.92 Hours 17.68 Feet / Hour

None Total Redrill Time = Average Penetration Rate =

Verticality Information

5" N X 2.75" W 33.29 18.34 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 404 Area "A"

•									CHITCHE	VALL CONS	TRUCTION			
		JFF WALL EXCAVA	NOL									-	Theorem	
	Compine	**	Drill Footage		Pure Drill Time		Penetration Rate	1			Non-Spec.	obec.	Decembra	
	1000		= 0	Dodrill	12.0	Redrill	Drill	Redrill	Concrete	Grout	Concrete	Concrete	Volume	CVerbreak
Dulling	ğ	EXCAVATION	Ē (3 6	300	ADC)	(AH / HB)	(FT / HB)	ata a	(CC, YD)	(CC.YD.)	(CC.YD.)	(CU.YD.)	
Date	*	Method	(<u>1</u>	(1)	CHE)	2								
08/26/93	2	DHD130A	140		7.08		19.77		08/26/93			55	32.7	68.2%

7.08 Hours 19.77 Feet / Hour

Total Drill Time = Average Penetration Rate =

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

o" N/S X o" E/W 18.34 25.86

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 405

Area "A"

		A materials	STOLERA		16.2%	
	Theoretical	-	(CU.YD.)		32.7	
	Spec		COLVD		38	
TRUCTION	Non-Snec		Concrete			
WALL CONS			Grout	XX. 12.1		
CUT-OFF WALL CONSTR			Concrete	Calc	09/29/93	
		ı	Redrill	ובויושה		
		Penetration Hate		(FI / DR)	15.28	
			Redrill	CHES CHES		
	п	Pure Unil Ime	li Co	(SHE)	9.16	
			Redrill	(FI)	٠.	
MULTION		Drill Footage	Drill	Œ	140	
CEMAN EXCAVA	T WALL LAUNY	-	Excavation	Method	DHD130A	
1	0	Fouriment	Rig	*	2	
			Drilling	Date	09/23/93	

Total Drill Time = Average Penetration Rate =

9.16 Hours 15.28 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

.5" S X 2.5" W 25.86 29.77

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 406 Area "A"

	+1.0	SEP MALL EVENAVA	TION						CUT-OFF WAI	VALL CONS	TRUCTION			
		JEE WALL EACAVE	2011									0220	Theoretical	
	Forting	ĮL.	Drill Footage		Pure Drill Time		Penetration Rate	- 1			Non-spec.	3000	Heorethan	
Drilling	Rig	ğ	Drill	Redrill	Orill	Redrill	Drill	Redrill /FT / HD	Concrete	Grout	Concrete	Concrete (CU.YD.)	(CU.YD.)	Overbreak
Date	#	Method	(F)	(FI)	(SHE	(SUL)	(UU / 1.1)	(1)	Date	100				
08/23/93	2	DHD130A	140		9.25		15.14		08/23/93			20	32.7	52.9%

Total Drill Time = Average Penetration Rate =

9.25 Hours 15.14 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

At Full Depth = S-ARC North = S-ARC South = Verticality Information

1.75" N X 1.25" W 29.77 26.39

Quality Coring: None.

Comments:

Primary Pile # 407 Area "A"

		Overbreak	32.7 19.3%	
	Theoretic	(CU.YD.)		
	Spec.	Concrete (CU,YD.)	8	
STRUCTION	Non-Spec.	Concrete		
WALL CONST		Grout		
CUT-OFF		Concrete	10/01/93	
	te	Redrill	(CL / LD)	
	Penetration Rate		15.84	
		Redrill	(SUL)	
	Pure Drill Time	= Š	8.84	
		Red III	(1)	
MOLL	Drill Footage	Dilli	(F1)	
EE WALL EXCAVA	1	ă	Method DHD130A	
		Rig	# 8	
		Drilling	Date 09/30/93	

Total Drill Time = Average Penetration Rate =

8.84 Hours 15.84 Feat / Hour

Totaf Redrill Time = Average Penetration Rate =

None

Verticality Information

1.5" N X .5" W At Full Depth = S-ARC North = S-ARC South =

26.39

Quality Coring: None.

Secondary Pile # 408 Area "A"

	110	DEE WALL EXCAVA	MOIT						CUT-OFF M	VALL CONS	TRUCTION			
	200	JEL WALL LAUNT	1011								Mon Spor	Spec	Theoretical	
	Carrie mod	44	Drill Footsce		Pure Drift Time		Penetration Hate	116			NOT LANGE	- characteristics		
		-	200		П		111			4	Commondo	Concrete	dui-	No-Dreak
Cailling		Excavation	E C	Redrill	- C	Hedrill	5	Hedull	Concrete	1005	COLCION	STATE OF THE PARTY		
2	20	10000000	Ę	Ę	(anno	(ADC)	GH/ HB	(FT / HR)	Date	(00,00)	(CO.AD.)	(CO.VD.)	(CO.4D.)	
Date	*	Method	L L		CHI	2								
08/18/93	2	DHD130A	140		13.16		10.64		08/19/93			89.5	32.7	112.6%

13.16 Hours 10.64 Feet / Hour

Total Drill Time. = Average Penetration Rate =

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

1"S X 3.5"W 22.71 30.11

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments: Connected to piles 443, 445, & 381

Primary Pile # 409

Area "A"

EWALL CONSTRUCTION	L CACAVATION Non-Spec. Spec.	renegation rate	Dail Redail Concrete Grout Concrete C	(FL/JH) (FL/JH) Late (CC.IC.)	DHD130A 140 8.33 16.81 10/02/93 38 32.7 16.2%	
OFFINALL EYCAVATIO	FF WALL EACHVAILE				DHD130A	
	0-100	Fauipment	Drilling Rig	Date #	10/02/93	

Total Drill Time = Average Penetration Rate =

8.33 Hours 16.81 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

At Full Depth = S-ARC North = S-ARC South =

1.5" N X 2.25" W 30.11 31.07

Quality Coring: None.

Secondary Pile # 410 Area "A"

	CITTO	FE WALL EXCAVA	NOIL						CUT-OFF V	WALL CONS	STRUCTION			
	Common	+	Drill Footage		Pure Drill Time		Penetration Rate	8			Non-Spec.	Spec.	Theoretical	
Orilling	Richard	Excavation		Redrill		Redrill	Drill	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
Date	°*	Method	Œ	(FT)	(HRS)	(HRS)	(FT / HB)	(FT/HR)	Date	(CU.YD.)	(CU.YD.)	(CO.YD.)	(CO.TD.)	
03/01/93	-	DHD130A	83		1.66		13.25			OPEN			5.1	
03/04/93	-	DHD130A	42		0.58	0.17	7241	0.00		OPEN			8.6	
03/11/93	-	DHD130A	B		0.41	0.17	158.54	0.00	03/12/93		8		15.2	31.8%
08/24/93	2	DHD130A	140	85	5.42	2.17	13.84	29.95	08/24/93			42	32.7	28.5%

8.07 Hours 25.28 Feet / Hour

Total Drill Time = Average Penetration Rate =

Total Redrill Time = Average Penetration Rate =

2.51 Hours 25.90 Feet / Hour

Verticality Information

4.75" N X 1" W 31.07 22.15

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 411 Area "A"

	10	TOPE WATER	TION						CUT-OFF WALL CONSTRUCTION	VALL CONS	TRUCTION			
	2-13	FF WALL EACAY	NOIS								Man Cont	l	Theoretical	
	Fallioment		Drill Footage		Pure Drill Time		Penetration Rate	- 1			Non-spec.		To delical	Australy.
Drilling	Rig	Ã,		Redrill	Drill	Redrill		Redrill FT / HB)	Concrete	Grout (CU YD.)	Concrete (CU:YD.)	COLYD.)	(CU.YD.)	Overbreak
Date	#	Method	(L)		2	200	() ()							
09/23/93	2	DHD130A	140		8.67		16.15		09/29/93			98	32.7	10.1%

Total Drill Time = Average Penetration Rate =

8.67 Hours 16.15 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

1.75" N X O" E/W 22.15 27.34 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 412 Area "A"

	11,0	SEE MAIL EYCAVA	MOIT						CUT-OFF	WALL CONS	CONSTRUCTION			
		CALL DANGER	201								2000	Chan	Theoretical	
		1	Drill Footscie		Pure Drill Time		Penetration Rate	te			Non-spec.	char.	Herena	
				1	= 0	1177	-	Dodrill	Concrete	1	Concrete	Concrete	Volume	September 5
24111	.50	Excavation	-	Hedri		Hedul	5	III DOU	COLCUE	3	2000	9	(8)	
Salling Salling	2		(Ę	1000	COOP			Date	(CC) AD)	(CC. AD.)	(CO.4D.)	CO. 10.)	
Date	*	Method	1		CHL	2	111111111111111111111111111111111111111							
								_						
					!		07.0		00/43/03			83.5	30.0	100.1%
00/05/03	_	DHD130A	171		2.53		9.6		26.63					
2000	•													

Total Drill Time = Average Penetration Rate =

20.17 Hours 8.48 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

2.67" N X 1.33" E 27.34

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: NX/NQ cored 177.2' deep on 11/04/93.

Comments: Hole collapsed after completion, had to be cleaned; connected to 442

Primary Pile # 413

Area "A"

		Overbreak			15.9%	
	Theoretical -	Volume	(CU.YD.)		39.7	
	Spec.	Concrete	(CU.YD.)		46	
STRUCTION	Non-Spec.	Committee	(Cl. VD.)			
CUT-OFF WALL CONSTRUCTION		******				
CUT-OFF			Concrete	Caro	10/01/93	
	ate			111711		
	Penetration R			ובו / נונו	15.95	
		١	Redrill	CHE		
	Dura Drill Time			(HRS)	10.66	
			Redrill	(FI)		
ATION	Dell Factors	DIIII LOOISIGE	Drill	E	170	
FYCAVI	WALE EXCHANGE	=	ā	Method	DHD130A	
	3		Ŗ	#	3 2	
			Drilling	Date	10/01/93	

Total Drill Time = Average Penetration Rate =

10.66 Hours 15.95 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

0 N/S X 0 E/W 22.69 25.19 At Full Depth = Verticality Information

S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 414 Area "A"

		THE COLUMN THE PARTY AND A PAR	14014						CUT-OFF W	WALL CONSTRUCTION	TRUCTION			
		OFF WALL EXCAV	201									3	Theoremeine	
	- Consistence	to	I Drill Footage		Pure Drill Time		Penetration Rate				Non-Spec.	obec	Heoretical	
		116	2000		ŀ				-		Constant	Concrete	OF THE	
S. Illia	.50	Evenuation		Redrill		Hedrill	5		Concrete	1000	COLCIDIO	2000000		
Similar Similar	2	- Company		Ę	(0010	ADDO		EN LE	Date	(CEX.D)	(CC.XD.)	(CU.YU.)	(CO.AD.)	
Cate	*	Method	(1-1)		(SUL)	2			2000					
					44.47		45.00		08/03/93			28	39.7	46.1%
08/03/93	_	DHD130A	1/0		- 4		3							
		-												

14.17 Hours 12.00 Feet / Hour

Total Drill Time"= Average Penetration Rate =

Total Redrill Time = Average Penetration Rate =

Verticality Information

At Full Depth = S-ARC North = S-ARC South =

1°S X 2°E 25.19 29.16

Quality Coring: None.

Comments:

Primary Pile # 415 Area "A"

	1	Overbreak		14.6%	
	Theoretical	(CU.YD.)		39.7	
	Spec.	Concrete (CU.YD.)		45.5	
TRUCTION	Non-Spec.	Concrete			
WALL CONSTRUCTIO		Grout			
CUT-OFF W		Concrete	Caro	09/27/93	
		Redrill	(UII / III)		
	Penetration Rate	Drill	ווייייי	16.44	
		Redrill	CHLIS		
	Pure Drill Time	DIIIO	(HRS)	10.34	
		Redrill	(FI)		
NOITY	Drill Footage	Dillo	(FI)	170	
FE WALL EXCAVA	*	Excavation	Method	DHD130A	
1		Rig	*	2	
		Drilling	Date	09/27/93	

10.34 Hours 16.44 Feet / Hour

Total Drill Time = Average Penetration Rate =

None

Total Redrill Time = Average Penetration Rate =

.75" N X 1.5" E 29.16 24.56 At Full Depth = S-ARC North = S-ARC South = Verticality Information

Quality Coring: None.

Area "A"

	ime Penetration Rate Non-Spec. Ineoretical	Fledrill Drill Redrill Drill Redrill Concrete Grout Concrete Concrete Volume Uverbreak	+	10.42 16.31 07/22/93 57 43.6%
NOL			(11)	170
IIT-OFF WALL EXCAVAT	uinment	Ξ.	# Metrod	2 DHD130A
C		Drilling	Date	07/22/93

10.42 Hours 16.31 Feet / Hour

Total Drill Time = Average Penetration Rate =

None

Total Redrill Time = Average Penetration Rate =

At Full Depth = S-ARC North = S-ARC South = Verticality Information

.75" S X 2.25" E 24.56 27.46

Quality Coring: None.

Comments:

Primary Pile # 417

Area "A"

Total Drill Time = Average Penetration Rate =

5.83 Hours 29.16 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

.25"S X 2"E 27.46 30.08 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 418 Area "A"

	CITTO	FF WALL FXCAVA	ATION						CUT-OFF W	WALL CONS	TRUCTION			
	Formone	1	Drill Footage		Pure Drill Time		Penetration Rate				Non-Spec.	Spec.	Theoretical	
Drilling	Rig	Д,		Redrill	Drill	Redrill	Drill FT / HB	Redrill (FT / HR)	Concrete	Grout (Cu YD)	Concrete (CU/VD.)	Concrete (CU.YD.)	(CU.YD.)	Overbreak
Date	*	Мешоо			2	2								
07/20/93	-	DHD130A	170		11.83		14.37		07/21/93			S	39.7	38.5%

Total Drill Time = Average Penetration Rate =

11.83 Hours 14.37 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

2.25" N X 3.52" E 30.08 11.01 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 419 Area "A"

		Overbreak	20.9%
	Theoretical	(CU.YD.)	39.7
	Spec.	Concrete (CU.YD.)	48
TRUCTION	Non-Spec.	Concrete	
CUT-OFF WALL CONSTRUCTION		Grout Cu YD	
ICUT-OFF		Concrete	09/24/93
		Redrill (FT / HB)	
	Penetration Rate		17.89
		Redrill	(Sulp)
	Pure Drill Time	Drill	9.50
		Redrill	
ATION	Drill Footage		170
FF WALL EXCAVA		Excavation	Method DHD130A
CUT-0	Fourinmen	Rig	3 #
		Drilling	Date 09/24/93

Total Drill Time = Average Penetration Rate =

9.50 Hours 17.89 Feet / Hour

None

Total Redrill Time == Average Penetration Rate ==

5.78" S X 0" E/W 11.01 39.60 At Full Depth = S-ARC North = S-ARC South = Verticality Information

Quality Coring: None.

Secondary Pile # 420 Area "A"

	O-TI-O	FF WALL FXCAVA	NOIL						CUT-OFF WALI	WALL CONS	STRUCTION			
	duinment		Drill Footage		Pure Drill Time		Penetration Rate	ıte			Non-Spec.	Spec	Theoretical	
Drilling	Fig.	Excavation		Redrill	Drill	Redrill	Drill (FT / HR)	Redrill (FT / HR)	Concrete	Grout (CU.YD.)	Concrete (CU.YD.)	Concrete (CU.YD.)	Volume (CU.YD.)	Overbreak
Date	#	Metroca					8		cologico		o		7.1	16.8%
03/02/93	-	DHD130A	23		L4.L		29.40		ne zolen		,		:	
06/24/93	-	DHD130A	8	8	2.00	2.33	5.40	14.16			OPEN HOLE			
07/05/93	-	DHD130A	170	0	4.83		35.20		07/06/93			68.5	39.7	726%

11.24 Hours 20.46 Feet / Hour Total Drill Time = Average Penetration Rate = 2.33 Hours 14.16 Feet / Hour Total Redrill Time = Average Penetration Rate =

5.15" N X 3.09" E 39.60 18.30 Verticality Information

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 421 Area "A"

	CUT-O	FF WALL EXCAVA	MOIT						CUT-OFF V	WALL CONS	TRUCTION			
	Fourioment		Drill Footage		Pure Drill Time		Penetration Rate	te			Non-Spec.	Spec.	Theoretical	
Drilling	Ş	Evenuation		Redrill	Drill	Redrill	Dial.	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
Safe	2 *	Method	<u> </u>	E	(HRS)	HRS)	(FT / HR)	(FT / HR)	Date	(CU.YD.)	(CU.YD.)	(CU.YD.)	(CU.YD.)	
2000	(40000	,		0 22		48.00		09/16/93			4	7.68	10.8%
58/91/80	N	PURION	0/1		3		10.00							

Total Drill Time = Average Penetration Rate =

9.33 Hours 18.22 Feet / Hour

Total Redrill Time == Average Penetration Rate ==

None

Verticality Information

0" N/S X 1.5" E 18.30 23.50 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Area "A"

7	_		_	7	Г		
		American				88.9%	
	Theoretical	1/44	ACCILIE	(CU.YD.)		39.7	
	Spec		Concrete	(CU.YD.)		75	
TRUCTION	Non-Cher	-	Concrete	(CU.YD.)			
CUT-OFF WALL CONSTRUCTION			1				
CUT-OFF			Concrete	Date	200	06/30/93	
		ate	Dodrill		101/11		
		Penetration Hate	=	5 t	(בו / חח)	9.49	
				Hedri	(SHE)		
		Pure Orill Time	ı.		(HKS)	17.92	
				Redrill	(FI)		
HOLL	NO	Drill Footsch	200		٥	170	
AVA CVC 14441 77	-OFF WALL EXCAVE		-	Excavation	Method	DHD130A	
1			Louiding	Rig	*	-	
				Drilling	Date	26/06/90	

Total Drill Time = Average Penetration Rate =

17.92 Hours 9.49 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

1.75°S X 6.29°E 23.50 19.66 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments: Hole collapsed

Primary Pile # 423

Area "A"

	_	Overbreak			7 15.9%	
	Theoretical	Volume	(CU.YD.)		39.7	
	Spec.	Concrete	CK ID		46	
TRUCTION	Non-Spec.	Concrete		20.00		
JT-OFF WALL CONSTR		4		20.10.1		
CUT-OFF			Concrete	Dale	09/23/93	
	9		Hedrill	CH / HB		
	Denotembor Date	במופתמונים ויפ		(FI / HH)	15.70	
			Redrill	(HRS)		
	٠	rure Dull I Ime	Drie	(HRS)	10.83	
			Redrill	E		
NO.	NO.	Drill Footage	Diel	Œ	170	
ALL ALL LANGE	UI - OFF WALL EXCAVE	+	Excavation	Method	DHD130A	
	201-1	Forminen	Bia	*	2	_
			Drilling	Date	09/22/93	

Total Drill Time = Average Penetration Rate =

10.83 Hours 15.70 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

5.33"S X 0" E/W Verticality Information

At Full Depth = S-ARC North = S-ARC South =

19.66 33.88

Quality Coring: None.

Comments: Connected with hole 399

Secondary Pile # 424 Area "A"

	CIIT-C	FF WALL EXCAVA	TION					1	CUT-OFF V	VALL CONS	TRUCTION			
	Former	=	Drill Footage		Pure Drill Time		Penetration Rate	te			Non-Spec.	Spec.	Theoretical	
Drilling	Rig	Excavation	Drill	Redrill	_		Drill	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
Date	*	Method	Œ	Œ	(HRS)	(RRS)	(FI/HR)	(FT/HR)	Date	(CU.VD.)	(CU.YD.)	(CU.YU.)	(CO.YD.)	
03/04/93	-	DHD130A	28		2.50		25.60		63/04/93		19		14.9	27.1%
												6	8	À CO
07/07/93	-	DHD130A	170	20	8.52	266	12.44	24.06	07/08/93			3	7.65	86.38
						1								

Total Drill Time = Average Penetration Rate =

11.02 Hours 15.43 Feet / Hour

Total Redrill Time = Average Penetration Rate =

2.66 Hours 24.06 Feet / Hour

Verticality Information

0" N/S X 0" E/W 33.88 17.71

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 425 Area "A"

		Overbreak		14.6%	
	Theoretical	Volume	(CU.YD.)	39.7	1000
	Spec.	Concrete	(CU:VD)	45.5	0000
STRUCTION	Non-Spec.	Concrete	(CU.YD.)		
VALL CONS		Grout	(CU.YD.)		
CUT-OFF WALL CONSTRUCTION		Concrete	Date	09/21/93	
	te	Redrill	(FT / HR)		
	Penetration Rate	Drill	(FT / HR)	14.78	
		Redrill	(HRS)		
	Pure Drill Time	Drill	(HRS)	11.50	
		Redrill	Œ		
TION	Drill Footage	Drill	E	170	
FF WALL EXCAVA		Excavation	Method	DHD130A	
CIT-O	Fortiment	E.	" *	2	
_		Drilling	a de	09/21/93	

Total Drill Time = Average Penetration Rate =

11.50 Hours 14.78 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

5.28" S X 3.52" E Verticality Information

At Full Depth = S-ARC North = S-ARC South =

17.71 28.56

Quality Coring: None.

Secondary Pile # 426 Area "A"

		Overbreak		46.3%	143 102	9
	Theoretical	Volume	(CO.YD.)	14.0	702	ğ
	Spec.	Concrete	(CO.YD.)		8	200
TRUCTION	Non-Spec.	Concrete	(CU.YD.)	20.5		
WALL CONS		Grout	(CU.VD.)			
CUT-OFF V		Concrete	Date	06/22/93		58/81/10
	1	Redrill	(FT/HR)			13.42
	Penetration Rate		(FT/HB)	15.00		8.55
		Redrill	(HRS)		!	4.47
	Pure Drill Time	Drill	(HRS)	4.00	!	12.87
		Redrill	Œ			8
VIION	Drill Footage	Drill	Œ	8		170
IFF WALL EXCAVA	-	Excavation	Method	DHD130A		DHD130A
cut-c	Fouriernt	Rig	*	-		-
-		Drilling	Date	06/24/93		07/11/93

Total Drill Time =

16.87 Hours 10.08 Feet / Hour

Total Redrill Time = Average Penetration Rate = Average Penetration Rate =

4.47 Hours 13.42 Feet / Hour

Verticality Information

3.92°S X 1.96°E

31.50 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments: Large cavity 56 -65' took 32 cubic yds of concrete to fill.

Primary Pile # 427 Area "A"

		Cverbreak		15.9%
	Theoretical	Volume	(CU.YD.)	39.7
	Spec.	Concrete	(CU.YD.)	46
STRUCTION	Non-Spec.	Concrete	(CU:VD.)	
CUT-OFF WALL CONSTRUCTION		Grout	(CU.YD.)	
CUT-OFF		Concrete	Date	09/18/93
	ate	Redrill	(FT / HR)	
	Penetration R	ii.o	(FT / HR)	15.11
		Redrill	(HRS)	•
	Pure Orill Time	Drill	(HRS)	11.25
		Redrill	E	
ATION	Drill Footage	Drill	Ę	170
FF WALL EXCAVA	-	Excavation	Method	DHD130A
CUT-0	Equipmen	Big	*	2
		Drilling	Date	09/17/93

Total Drill Time = Average Penetration Rate =

11.25 Hours 15.11 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

At Full Depth = S-ARC North = S-ARC South =

0" N/S X 1.76" W 31.50 28.13

Quality Coring: None.

Secondary Pile # 428 Area "A"

ICUT-OFF WALL CONSTRUCTION	Character Char	Not-spec.	Redrill Drill Redrill Drill Redrill C	(FT) (HRS) (FT/HR) (FT/HR) Date (CU,YD.) (CU,YD.)		75 2.50 30.00 07/12/93 36 17.5 105.6%		DHD130A 170 75 7.26 3.92 13.09 19.13 07/27/93 46 39.7 15.9%	
TAVA TAVATA	-OFF WALL EXCAVAL	product	-	Mathod	Medica	AUD 130A		1 DHD130A	
1	3	Collins			Date #	00/04/20	01/1235	07/26/93	

9.76 Hours 17.42 Feet / Hour

Total Drill Time = Average Penetration Rate ==

3.92 Hours 19.13 Feet / Hour

Total Redrill Time = Average Penetration Rate =

At Full Depth = S-ARC North = S-ARC South =

Verticality Information

1" N X .75" W 28.13 25.29

Quality Coring: None.

Comments:

Primary Pile # 429 Area "A"

		e Overbreak		39.7 15.9%	
	Theoretical	(CU.YD.)			
	Spec.	Concrete (CU.YD.)		46	
LL CONSTRUCTION	Non-Spec.	Concrete (CU.YD.)			
WALL CON		Grout (CU YD.)			
CUT-OFF WALL		Concrete		09/07/93	
	te	Redrill (FT / HR)			
	Penetration Rate	Drill (FT / HB)		17.00	
		Redrill	2		
	Pure Drill Time	Drill	2	10.00	
		Redrill			
ATION	Drill Footage	lio (170	-
FF WALL EXCAV	+	, Q,	Method	DHD130A	
CITT	Forming	Rig	#	8	
		Drilling	Date	09/07/93	

Total Drill Time = Average Penetration Rate =

10.00 Hours 17.00 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

0" N/S X 0" E/W 25.29 28.16 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 430 Area "A"

		-OFF WALL EXCAVA	VIION	į					CUT-OFF M	VALL CONS	STRUCTION			
	Forman		Drill Footage		Pure Drill Time		Penetration Rate				Non-Spec.	Spec.	Theoretical	
Drilling	Rig	ā	Drill	Redrill	== (Redrill	Onill On P	Redrill (CT / LID)	Concrete	Grout	Concrete	Concrete (CU.YD.)	Volume (CU:YD.)	Overbreak
Date	*	Method	(FI)	(FI)	(HHZ)	QUE.	(F1 / DR)	ווו / וווו	Date	נים וייבר				
03/05/93	-	DHD130A	8		2.75		10.91		03/03/93		7		2.0	-0.1%
03/10/93	_	DHD130A	65	8	1.00	0.41	35.00	73.17	03/10/93		24		15.2	38.4%
07/23/93	-	DHD130A	98	æ	250	3.00	8.40	21.67	07/24/93		71.5		20.1	256.0%
07/29/93	-	DHD130A	170	88	1.58	4.75	53.16	18.11	02/30/93			45	39.7	13.4%

Total Drill Time =

7.83 Hours 21.71 Feet / Hour

Average Penetration Rate =

8.16 Hours 22.18 Feet / Hour

Total Redrill Time = Average Penetration Rate =

Verticality Information

1" N X 0" E/W 28.16 20.05 At Full Depth =

S-ARC North = . S-ARC South =

Quality Coring: 6" Joint core 430/431; 29.6' deep on 10/29/93.

Comments: Cavity at 86'; placed 71.5 cu. yds

Primary Pile # 431 Area "A"

Drill Footage) EE	WALL EXCAVA	ATION						CUT-OFF V	VALL CONS	TRUCTION			
Drill Footage	1										Mon-Choc	Suer	Theoretical	
Drill Redrift Drill Redrift Drill Redrift Concrete Grout Concrete Volume Volume			Drill Footage		_		Penetration Ha	- 1			ad oppor	1	1/-1-1-1	Sign to Co
(FT) (FT) (HRS) (HT / HR) (FT / HR) Date (CU.YD.) (CU.YD.) (CU.YD.) (CU.YD.) (CU.YD.) (CU.YD.) (CU.YD.) (CU.YD.) (CU.YD.) (CU.YD.) (CU.YD.) (CU.YD.) (CU.YD.) (CU.YD.)	Fycavat	uo.	Drill	Redrill	Drill	Redrill	=== O	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
170 10.08 16.87 09/09/93	Madh	3	Ę	Ę	HES	(HRS)	(FT / HR)	(FT / HR)	Date	(CU:VD)	(CU.VD.)	(CU.VD.)	(CU.YU.)	
170 10.08 16.87 09/09/93	MICHIE													
	DHD130/	8	170		10.08		16.87		06/60/60			46.5	39.7	17.1%

Total Drill Time = Average Penetration Rate =

10.08 Hours 16.87 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

At Full Depth = S-ARC North = S-ARC South = Verticality Information

3.25" S X 0" E/W 20.05 30.43

Quality Coring: None.

Secondary Pile # 432 Area "A"

		AVA 0V7	INCIT						CUT-OFF V	WALL CONS	TRUCTION			
		JEE WALL EACAVE	NOIS								Mari Case	Coor	Theoretical	
	- Tanana	1	Drill Footage		Pure Drill Time		Penetration Rate				NOTI-Spec.	3	Honorman	A. Transfer
			-	Dedeil		Dodrill	III-C	Redrill	Concrete	Ground	Concrete	Concrete	volume	Cverpredic
Drilling	ş	Excavation	E 5		5			į		5	5		(CEXE)	
900	*	Method	٥	<u>E</u>	E SS	HES	FI/HH	FI/HH	Care	20.10.	(SC: 10:)			
Date	=													
							27 00		07/45/03		35.5		18.7	%0.06 6
07/14/93	-	DHD130A	8		2.08		9.9		26/10/10					
									ľ			ØV.	30.7	30 08
07/28/03	-	DHD130A	170	8	8.66	4.09	10.39	19.26	07/28/93			?	š	20.00
01/20/20														

Total Drill Time =

10.74 Hours 15.83 Feet / Hour

Average Penetration Rate =

4.09 Hours 19.56 Feet / Hour

Total Redrill Time = Average Penetration Rate =

Verticality Information

.5'S X .5'E 30.43 24.57

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments: Connected with pile 460

Primary Pile # 433 Area "A"

		No. of the last	_	_			45 39.7 13.4%
L CONSTRUCTION	L	1000	Concrete		(CU.YU.)		
٧AL			ST.	3	(CU.YD.)		82
CUT-OFF \			Concrete		Date		09/11/93
		316	Dodrill	III Deu	FT/HB		
		Penetration HE		= 5	(F) HB		27.60
			11777	Hedrill	HDC	2	
	ľ	Pure Drill I me	-	====	ADD	(SUL)	6.16
				Hedri	Ę		
NOIT		Drill Footage		Dig.	Ę	L	170
EE WALLEYCAVA	TH WALL EACAY			Fycavation		Method	240
1	2		5	ä	D	#	2
				Orilling		Date	09/10/93

Total Drill Time = Average Penetration Rate =

6.16 Hours 27.60 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

2°S X .5°E 24.57 29.37 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Area "A"

			1401						CUT-OFF WALL CONSTRI	VALL CONS	TRUCTION			
		JEE WALL EXCAVA	202								0.000	2000	Theoretical	
			Orill England		Pure Onli Time		Penetration Rate	te			Non-spec.	300	i i concentrati	
		1	Cilli i Colado					-	- The state of the		Concrata	Concrete	VOLUMB	XBB10-BX
	Dig	Evenation	Drill	Redrill		Hedrill	5	Hedu	Colorede	100	S C C C C C C C C C C C C C C C C C C C		5	
Similar	2	- Company	Ę	Ę	(SOD)	(HDC)	FT / HB	(FT/HB)	Date		(CO.YD.)	(CO.1D.)	(20.10.)	
Date	*	Method			211	2				1				
								_					1	
					8		24.24		03/12/93		18		15.2	18.6%
03/11/93	_	DHD130A	8		3.		1							
												0	7.06	101 704
		40070110	- 2	A.	1 25	3 42	933	19.01	08/12/93			8	2.53	97:17
08/11/93	_	AMELIAN	2	3	3									
	_								-					

Average Penetration Rate = Total Drill Time =

13.15 Hours 12.93 Feet / Hour

Total Redrill Time = Average Penetration Rate =

3.42 Hours 19.01 Feet / Hour

Verticality Information

0" N/S X 1.5" W 29.37 At Full Depth =

S-ARC North = S-ARC South =

Quality Coring: None.

Comments: DEFICIENT JOINT WIDTH AT FULL DEPTH, CORRECTED WITH CONFORMING PILE. Connected with pile 472; Large cavity encountered.

Primary Pile # 435

Area "A"

CTION	Spec		CONCRETE CONCRETE VORTINGARY		44 39.9 10.2%	
UT-OFF WALL CONSTRUCTION	W		Concrete Grout	20.00	09/15/93	
		enetration Hate	Drill Redrill	(FI / HH) (FI / HK)	18.83	
		Pure Drill Time	Drill Redrill	(HRS) (HRS)	90.68	
220	201	Drill Footage	Redrill	(FI) (FI)	171	
TOUR WAY I DOON AT	I - CTT WALL EACAYA	ninmont.	ig Excavation	Method	2 DHD130A	
	3		1	Date #	09/15/93	

Totaf Drill Time = Average Penetration Rate =

9.08 Hours 18.83 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

6.54"S X 12.10"E At Full Depth = S-ARC North = S-ARC South =

6.23

Quality Coring: None.

Area "A"

	1	AVA TO COMMA	TION						CUT-OFF WALL CONSTRUCTION	VALL CONS	TRUCTION			
	21 22	これ マングレー ロングング	100								1000	Succes	Theoretical	
	Common	+	Drill Footage		Pure Drill Time		Penetration Rate				Non-spec.	char.	i i concentral	1
Drilling	Rig	ă	Drill	Redrill	Diel C	Redrill	Drill Original	Redrill (17)	Concrete	Grout	Concrete (CU.YD.)	COLYD.)	(CU.YD.)	CVerbreak
Date	*	Method	(FI)	(FI)	(HRS)	CHE	מעויים ו	(iii)	200					
07/31/93	-	DHD130A	170		15.42		11.02		08/05/93			18	39.7	104.0%

15.42 Hours 11.02 Feet / Hour

Total Drill Time"≕ Average Penetration Rate =

None

Total Redrill Time = Average Penetration Rate =

5.18" S X 3.11" E Verticality Information

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments: Cavities 40 to 60' deep

Primary Pile # 437

Area "A"

		September C				28.5%	
	Theoretical	Voltime		100.00		39.7	
	Spec.	Concrete	20100	CO.YO.		51	
TRUCTION	Non-Spec.	Compando		(CU.YD.)			
WALL CONS		1	alone.	(CO.VD.)			
CUT-OFF			Concrete	Date		08/30/83	
	ate		ELDOY	(FT/HR)			
	Penetration Bate		5	(FI/HR)		16.18	
		ĺ	Redrill	(HRS)			
	Dura Drill Tima	el.		(HRS)		10.51	
			Redrill	Œ			
ATION	Dell Coopers	Dim i Colaye				170	
FE WALL EXCAV	THE PROPERTY.	11	Excavation	Method	SALKS III	DHD130A	
	5		ğ	? *		N	
			Orilling	Date of	Dalo	08/30/93	

Total Drill Time = Average Penetration Rate =

10.51 Hours 16.18 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

10.30°S X 1.5°E 18.36 31.90 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 438 Area "A"

		-OFF WALL EXCAVA	ATION						CUT-OFF V	VALL CONS	TRUCTION			
	3	WALL EXCLUSION			Course Dail Time		Denotration Rate	4			Non-Spec.	Spec.	Theoretical	
	Eguiomen	=	Dull roomge		alle Dilli i i ille		a longing	- 1					Vehine	Out the same
Cailling	0	Evention	ii.C	Redrill	Ē	Redrill	<u>=</u>	Redrill	Concrete	Grout	Concrete	Concrete	Nomine	Overbreak
2	ĵ.	Market Co.	Ę	Ę	(App.)	HPS	EH/HB	FT / HB	Date	(CU.YD.)	(CU.YD.)	(CU.YD.)	(CU.VD.)	
Cate	#	Metrod			2	2								
											1		0 00	
08/09/93	-	DHD130A	171		12.41		13.78		08/10/93		46.5		9.99	15.4%
2000														
-	,	4000	470	171		7 42	FRR	23.05	08/16/93			₹	39.7	13.4%
08/16/93		ADEI DHO	2											
								-						

Total Drill Time = Average Penetration Rate =

12.41 Hours 13.70 Feet / Hour

Total Redrill Time = Average Penetration Rate =

7.42 Hours 23.05 Feet / Hour

5" S X 5.78" W 31.90 33.69 Verticality Information

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments: Connected with pile 470; Hole collapsed 50 feet.

Primary Pile # 439 Area "A"

		Overbreak		15.9%
	_	(CU.YD.)		39.7
	Spec.	Concrete		46
CUT-OFF WALL CONSTRUCTION	Non-Spec.	Concrete	,	
WALL CONS		Grout	100	
CUT-OFF \		Concrete		08/23/93
	ite	Redrill (T)		
	Penetration Rate	Orill	01711	16.31
		Redrill	(SUL)	
	Pure Drill Time	Drill S	CHLS	10.42
		Redrill	1	
TION	Drill Footage			170
FF WALL FXCAVA		Excavation	Method	DHD130A
O-TI-O	Fairbmen	Rig	*	-
		Drilling	Date	08/23/93

Total Drill Time = Average Penetration Rate =

10.42 Hours 16.31 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

1.25" N X O" E/W 33.69 24.66 At Full Depth =

S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 440 Area "A"

	1	FE MALL EYCAVA	TION						CUT-OFF V	VALL CONS	TRUCTION			
	0	JEL WALL LAUNA					Dan attended Date				Non-Spac	Spec	Theoretical	
	Fourmen	+	Drill Footage		Pure Chill Ime		Penetration hate				100			1
	o io	Evesuation	Drill	Redrill	Drill	Redrill	Ē	Redrill	Concrete	Grout	Concrete	Concrete	Volume	CVerbreak
	2	Mathod	Ę	Ę	HES	HRS	FT/HB	_	Date	(CU.YD.)	(CC.YD.)	(CU.VD.)	(CU.YD.)	
Care	*	Medica												
00,000	,	DUD430A	۶		5		22.56		03/03/93		60		7.0	-14.4%
03/02/30	_	ASIGHO .	3		}									
	•	10000	727	Ş	\$	98 0	12 AB	34 88	08/13/93			18	30.9	37.7%
08/12/93	-	ADSTOHO.		3	3	3	1	3						

Total Drill Time =

12.63 Hours 13.54 Feet / Hour

Average Penetration Rate =

0.86 Hours 34.88 Feet / Hour

Total Redrill Time = Average Penetration Rate =

Verticality Information

At Full Depth = S-ARC North = S-ARC South =

0" N/S X 3" E 24.66 17.96

Quality Coring: None.

Comments:

Primary Pile # 441 Area "A"

		SEE WALL EXCAVE	NOIT						CUT-OFF WALL CONSTRUCTION	VALL CONS	TRUCTION			
		THE PROPERTY									Mon Coop	Coor	Theoretical	
	Fortingen	1	Drill Footage		Pure Drill Time		Penetration Hat	0			NOI-Spec	apar.	N-t-	A to the state of
Drilling	Rig	Excavation	Orig	Redrill	Orill	Redrill		Redrill FT / HD	Concrete	Graft CL VD	Concrete (CU YD.)	(CU.YD.)	(CU,YD.)	Overbiedin
Date	*	Method	4	(FI)	2	CUU	201712		Nav					
08/18/93	-	DHD130A	170		90.08		18.72		08/18/93			49	39.7	23.4%

Total Drill Time = Average Penetration Rate =

9.08 Hours 18.72 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

5.28" S X .75" E

Verticality Information

17.96 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 442 Area "A"

CUT-OFF WALL CONSTRUCTION	Chac	and other	Redrill Concrete Grout Concrete Concrete Volume Overbreak		08/07/93 68.8%	
		Penetration Hate	Redrill Drill	+	19.23	
		Pure Drill Ime		(HRS)	88.88	
NO		Drill Footage	Drill	(FT)	170	
CE WALL EXCAVAT	THE PROPERTY	-	ă	Method	DHD130A	
	0-100	Fourier	Drilling Rig	Date #	08/06/93	

Total Drill Time = Average Penetration Rate =

8.84 Hours 19.23 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

At Full Depth = S-ARC North = S-ARC South =

3" N X 2.25" E 37.01 24.88

Quality Coring: None.

Comments: Connection with pile 412

Primary Pile # 443 Area "A"

	1	SEEWALL EYCAVA	MOIT						CUT-OFF V	JT-OFF WALL CONSTRU	TRUCTION			
	5	THE WALL CANAL	2012								0 14	ı	Thompson	
	Follower	1	Drill Footage		Pure Drill Time		Penetration Rate	1			Non-spec.		i i a delina	
Drilling	, id	Everation	Drill	Redrill		Redrill	ii.	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Cverpreak
2	2	Mothod	Ę	٤	HPS	(HRS)	FH/HB	FT / HR	Date	(CU.YD.)	(CU.YD.)	١	(CU.VD.)	
Date	#	Menica			120									
08/20/93	-	DHD130A	. 170		10.50		16.19		08/20/93			46	39.7	15.9%

10.50 Hours 16.19 Feet / Hour

Total Drill Time = Average Penetration Rate =

None

Total Redrill Time = Average Penetration Rate =

2" N X 1.5" W 24.88 26.00 Verticality Information

At Full Depth == S-ARC North == S-ARC South ==

Quality Coring: None.

Secondary Pile # 444 Area "A"

ON CUT-OFF WALL CONSTRUCTION	Non-Spec. Spec. Theoretical	n Drill Redrill	170 99.42 18.05 08/04/93	
UT-OFF WALL EXCAVATION	uinment		1 DHD130A	
	Forris	Drilling Rig	Date #	

9.42 Hours 18.05 Feet / Hour

Total Drill Time = Average Penetration Rate =

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

1.5" N X 0" E/W 26.00 25.55 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 445 Area "A"

	cut-o	FF WALL EXCAVA	TION						CUT-OFF!	WALL CONS	THUCTION			
	Fauripment	1	Drill Footage		Pure Drill Time		Penetration Rate				Non-Spec.	Spec.	Theoretical	
Drilling	Rig	Φ.		Redrill	Drill	Redrill		Redrill (ET / HB)	Concrete	Groff	Concrete	Concrete	(CU.YD.)	Overbreak
Uate	#	метод		11.11	CUL	CALID	11111	, , , , , , , , , , , , , , , , , , ,	XW.					
08/17/93	*	DHD130A	170		10.67		15.93		08/18/93			47	39.7	18.4%

Total Drill Time = Average Penetration Rate =

10.67 Hours 15.93 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

1" N X 4" E 25.55 25.22 At Full Depth =

S-ARC North = S-ARC South =

Quality Coring: None.

Comments: Connected with pile 408

Secondary Pile # 446 Area "A"

	1	TELMAII EVENAVA	MULION						CUT-OFF V	WALL CONSTRUCTION	TRUCTION			
		THE WALL EACH	101								1000	Speci	Theoretical	
	Continuont	+	Orill Footage		Pure Drill Time		Penetration Rai	te			Non-spec.	apar.	in octoring	
		1					= 170	Badail	Company	4.740	Concrete	Concrete	Volume	XEE CONS
Drilling	Si.	Excavation	5	Redri	Dull	Hedri	5	Heari	Para Para	3	2000			
2	n .	10000	Ę	Ę	HRS	(HRS)	EH/12	(FH.) FE	Date	(CU.VD.)	(CU.YD.)	(.07.02)	(70.10.)	
Date	#	Metrod			2000									
												0	5	700 OV
00,000	,	Account	420		11.67		14.57		02/22/83			B	7.75	
0/22/95		ANSIGHO.	2											

11.67 Hours 14.57 Feet / Hour

Total Drill Time = Average Penetration Rate =

None

Total Redrill Time = Average Penetration Rate =

0" N/S X 5.78" E 25.22 29.40 Verticality Information

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 447

Area "A"

	_	overbreak		39.7 20.9%	
	F	Volume (CU.YD.)	_	48	
	Spec.	Concrete (CU.YD.)		4	
STRUCTION	Non-Spec.	Concrete			
WALL CONS		Grout			
CUT-OFF WALL CONSTRUCTION		Concrete	Caro	08/21/93	
	ţe.	Redrill	ובו / ונו		
	Penetration Rate		(FI / III)	18.70	
		Redrift	CHES		
	Pure Drill Time	- 2	(HRS)	90.6	
		Redrill	(E)		
MILON	Drill Footboo	Dial.	(FD	170	
T OFF WALL FYCAVA	יייייייייייייייייייייייייייייייייייייי	Excavation	Method	DHD130A	
		Rig	#	3	
		Drilling	Date	08/21/93	

Total Drill Time = Average Penetration Rate =

9.09 Hours 18.70 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

2" N X 4" E 29.40 25.97 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 448 Area "A"

	_	me Overbreak YD.)	39.7 73.8%	
	_	ote Volume D.) (CU.YD.)	22	
7		Concrete (CU.YD.)		
CUT-OFF WALL CONSTRUCTION	Non-Spe	Concrete (CU.YD.)		
FF WALL CO		Grout (CU.YD.)		
CUT-O		Concrete		
	n Rate	Redrill (FT / HR)	60	
	Penetration Rate	II Drill		
	il Time	Redrill	11.50	
	Pure Drill		-	
	306	Redrill	170	
VATION	Driff Foots	Ē.	_11	
DEF WALL EXCA	to.	Ð,	DHD130A	
CIT	Forting	E .	# 1	
		Drilling	Date 07/15/93	

11.50 Hours 14.78 Feet / Hour

Total Drill Time == Average Penetration Rate ==

None

Total Redrill Time = Average Penetration Rate =

1.79" N X 0" E/W 25.97 23.35 At Full Depth = S-ARC North = S-ARC South = Verticality Information

Quality Coring: None.

Comments:

Primary Pile # 449 Area "A"

And State Portion Flage Penetration Rate Redrill Indicate Penetration Redrill Penetration Redrill Poil Redrill Penetration Redrill Poil Redrill Penetration Redrill Poil Redrill Penetration Redrill Poil Redrill Penetration Redrill Poil Redrill Penetration Redrill Poil Redrill Penetration Redrill Poil Redrill Penetration Redrill Poil Redrill Penetration Redrill		CITY O	T OFF WALL EYCAVA	MOLL						CUT-OFFV	VALL CONS	TRUCTION			
Equipment Drill Footage Pure Drill Time Perretration Hate Perretration Hate Concrete Ground Cut/TD.) Policities of Concrete Pol		וככו	THE WALL LACAN									20.00	0.00	Thousanion	
Fig Excavation Drill Redrill Drill Redrill Drill Redrill Drill Redrill Concrete Group Concrete		Fouriomen	1	Drill Footage		Pure Drill Time		Penetration Ha	9			NOTI - Spec.	onec.	HIGHEREA	A section of
# Method (FT) (HRS) (HRS) (FT/HR)	Crilling	CiO.	ľ	ايتار	Redrill		Redrill	Pri-O	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Cverbreak
2 DHD130A 170 10.51 16.18 08/26/93 46.5		2	Dana Andrew	Ę	Ę	ADD	(HDC)	(FT / HR)	(FI / HR)	Date	(CO. AD.)	(CC.YD.)	(CU:YD:)	(CU,YD.)	
2 DHD130A 170 10.51 16.18 08/26/93 46.5	Date	*	Metrico	(12)		2	2								
	08/24/93	S	DHD130A	170		10.51		16.18		08/26/93			46.5	39.7	17.1%

Total Drill Time = Average Penetration Rate =

10.51 Hours 16.18 Feet / Hour

Total Redrill Time = Average Penetration Rate ==

None

Verticality Information

.5' S X .5' W 23.35 27.45 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Area "A"

	11.00	ALL MALL EVOAVA	NOIL						CUT-OFF V	۷AL	L CONSTRUCTION			
		JEE WALL EACAVE	201								Man Coop	Char	Theoretical	
	Courie mon	4.	Drill Footage		Pure Drill Time		Penetration Hate	- 1			NOI-Spar	3	Web in	Author C
Drilling	Rich	Excavation	Dill	Redrill	Dill	Redrill	Dilli O	Redrill	Concrete	Grout	Concrete	Concrete	Nouthern Co.	CVerbiear
) ¥	Method	(Œ	(HRS)	(HRS)	EH/FE	FI/HR)	Date	(CU.YD.)	CU.YU.)	CO.1D.)	20.10.	
Calle		2012												
00,00,00	,	A001-0-0-0	S		1.33		37.59		03/03/93		=		11.7	-5.8%
03/02/30		TO COLO	3		1									
	,		,	S	g	1.58	14.83	31.65	07/20/93			51.5	38.7	82.58
07/20/93	_	DHDI30A	2	3	3	3								

Total Drill Time = Average Penetration Rate =

9.42 Hours 18.05 Feet / Hour

Total Redrill Time = Average Penetration Rate =

1.58 Hours 31.65 Feet / Hour

Verticality Information

o" N/S X O" E/W 27.45 29.39

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 451 Area "A"

15.9% Overbreak 39.7 Theoretical Volume (CU.YD.) 8 Spec. Concrete (CU.YD.) CUT-OFF WALL CONSTRUCTION

Concrete Grout Concrete

Date (CU.YD.) 09/21/93 Redrill (FT / HR) Penetration Rate 19.79 (FT/HR) Redrill (HRS) Pure Drill Time Drill (HRS) 8.50 Redrill (FI) Drill Footage Drill (FT) 170 CUT-OFF WALL EXCAVATION Excavation **DHD130A** Equipment Rig 8 09/20/93 Drilling Date

Total Drill Time = Average Penetration Rate =

8.59 Hours 19.79 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

2.77" N X 6" W 29.39 29.48

Verticality Information

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments: Connected with pile 425

Area "A"

	TILO	SEE WALL EXCAVA	NOIT						CUT-OFF WALL	OS.	NSTRUCTION			
		*	Orill Footbade		Pure Drill Time		Penetration Rate				Non-Spec.	Spec.	Theoretical	
Drilling	Rig	ğ	Drill	Redrill	Drill	Redrill		Redrill	Concrete	Grout	Concrete	Concrete (CII VII)	Volume	Overbreak
Date	*	Method	Œ	(F1)	(HHS)	(HPS)	(FI / HH)	(uu / iu	Calle	20.10.1	100.100	100		
02/06/93	-	DHD130A	170		11.33		15.00		07/07/93			\$	39.7	61.2%

11.33 Hours 15.00 Feet / Hour

Total Drill Time = Average Penetration Rate =

Total Redrill Time = Average Penetration Rate ==

None

Verticality Information

4.78" N X 6.79" W

29.48 22.83 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 453

Area "A"

	0-110	FEWALL EXCAVA	MOIT						CUT-OFF WALL CONS	WALL CONS	TRUCTION			
	Fortimen	-	Drill Footage		Pure Drill Time		Penetration Rate	te			Non-Spec.	Spec.	Theoretical	
Drilling	Rig	Excavation	Dull	Redrill	Orill	Redrill	Orill	Redrill /FT / HB)	Concrete	Grout (CLI YD)	Concrete	Concrete (CU,YD.)	(CU,YD.)	Overbreak
Date	*	Memod			2	CALLE			X					
09/13/93	2	240	170		5.33		31.89		09/14/93			47	39.7	18.4%

Total Drill Time = Average Penetration Rate =

5.33 Hours 31.89 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

2.5" N X 2.5" W 22.83 23.96 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Area "A"

	1	ALE MAIL EVENAVA	NOIT						CUT-OFF WAI	_	L CONSTRUCTION			
		JEE WALL CAUAY	101								Nice Cross	· Sec	Theoretical	
	Con view on	*	Drill Footage		Pure Drill Time		Penetration Hate				300		17-1	Out the contract of
	-100	Constitution	li-C	Radrill	Drill	Redrill	Dril	Redrill	Concrete	Grout	Concrete	Concrete	Volume	CVendream
Guilling	Đ.	Excavation	5 6	Ę	G H	(HRS)	(FT / HR	FH/HB	Date	(CU:VD)	(C.Y.D.)	(CU.YD.)	(CU.YD.)	
Date	*	Memod			2	2								
					000		9		03/05/93		24		14.0	49.9%
03/04/93	_	DHD130A	38		30.0		3							
			į	8	3	2 33	25.46	ta m	07/13/93			28	39.7	26.0%
07/13/93	=	DHD130A	2	3	4.06	3								

Total Drill Time = Average Penetration Rate =

7.65 Hours 22.22 Feet / Hour

3.33 Hours 18.02 Feet / Hour

Total Redrill Time = Average Penetration Rate =

At Full Depth =
S-ARC North =
S-ARC South = Verticality Information

1" N X 2" E 23.96 25.24

Quality Coring: None.

Comments:

Primary Pile # 455 Area "A"

Total Drill Time = Average Penetration Rate =

5.33 Hours 32.08 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

0" N/S X .5" E 25.24 28.13

Verticality Information

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments: Connected with pile 485

Secondary Pile # 456 Area "A"

	TIJO	DEE WALL EXCAVA	NOIT						CUT-OFF W	WALL CONST	TRUCTION			
		OI WEEL COM	Dail Footogo		Dura Orill Time		Penetration Bate	to.			Non-Spec.	Spec.	Theoretical	
	Eduloment	JU.	DIIII LOOKAGE			1	2	ı				-	Wahima	James Company
Drilling	.5	Excavation	Drill	Redrill		Redrill		Redrill	Concrete	Sport	Concrete	Concrete	AUIIIOA	CVENTIONS
	D.	7	Ę	Ę	HPS	HRS	FT/HB	(FI / HB)	Date	(CC.XD)	(CU.YD.)	(CU.YD.)	(CO.AD.)	
Late	#	Mediod			2									
07/09/93		DHD130A	171		12.59		13.58		02/09/33			55.5	39.9	39.0%

12.59 Hours 13.58 Feet / Hour

Total Drill Time = Average Penetration Rate =

Total Redrill Time = Average Penetration Rate ==

t" N X 1.25" E 28.13 12.79 At Full Depth = S~ARC North = S-ARC South = Verticality Information

Quality Coring: None.

Comments:

Primary Pile # 457 Area "A"

		Overbreak		10.8%	
	Theoretical	(CU.YD.)		39.7	
		Concrete (CU.YD.)		44	
TRUCTION	Non-Spec.	Concrete (CU.YD.)			
WALL CONS		Grout			
CUT-OFF W		Concrete	NAME OF THE PERSON OF THE PERS	09/17/93	
		Redrill (FT / HB)			
	Penetration Rate		1	16.85	
		Redrill	2		
	Pure Drill Time	Drill	CHU	10.09	
		Red iii			
MION	Drill Footage	E		170	
FF WALL EXCAVA		Excavation	Method	DHD130A	
	Commen	Rig	*	2	
		Drilling	Date	09/17/93	

10.09 Hours 16.85 Feet / Hour

Total Drill Time = Average Penetration Rate =

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

6.54" S X 1" W 12.79 34.77 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 458 Area "A"

•	F	FF 14/41 1 EVC AV/A	NOIL						CUT-OFF	JT-OFF WALL CONSTRUCTION	TRUCTION			
		THE WALL EXCAVE	100								Alon Coor	Spac	Theoretical	
	The state of the s		Drill Footsde		Pure Drill Time		Penetration Hate				Mail Spec.	1	Wet	A. Tarach
		1	2	I				History	Company	2	Concrete	Concrete	Voume	
Deilling.	5	Evestation	Ē	Redrill	5	Hedri		Hear	COLICIATA	3			3	
	P :	7 7 7	Ę		(HBC)	HRS	(FT / HB)	(FT/HR)	Date	(CU.VD.)	(CO.YD.)	(CO.1D.)	(2)	
Date	*	Memod		Ī	2									
05/10/93	-	DHD130A	170		13.91		12.22		07/12/93			23	39.7	31.0%

13.91 Hours 12.22 Feet / Hour

Total Drill Time = Average Penetration Rate =

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

0" N/S X 2" E 34.77 29.30 At Full Depth =

S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 459 Area "A"

Equipment Excavation Dilling Rig Excavation										-		
Equipment Rig									Minn Ones	Coco	Theoretical	
Rig	Drill Footage		Pure Drill Time		Penetration Rate	0			NOT - Spec.	9000	Topicon and a series	A conference of
Rig	2000					17 T C	Constitution	± 24	diam'r.	Concrete	Volume	
	<u> </u>	Redrill		Hedrill			College			(CF XE)	(CU.YD.)	
Date # Method	<u>_</u>	<u>E</u>	(HRS)	(HHS)	(FI / HH)	FI/HB	Dale	100.				
09/07/93 2 DHD130A	170		8.00		21.25		09/08/93			47	39.7	18.4%

Total Drill Time = Average Penetration Rate =

8.00 Hours 21.25 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

At Full Depth = S-ARC North = S-ARC South = Verticality Information

2" N X 4.53" E 29.30 25.55

Quality Coring: None.

Area "A"

-	1	SEE MALL EYCAVI	MOIT						CUT-OFF V	WALL CONS	STRUCTION			
	2 - 103	JET WALL LAUNY			Time Dail Time		Denotration Bata	4			Non-Spec.	Spec.	Theoretical	
	Forminan	=	Only Footage	•	Pure Drill I III e I		al calation i ka						Makimo	Josephan
Drilling	Rig	Δ,	Ē	Redrill	Drill	Redrill		Redrill FT / HR	Concrete	Grouf (CU.YD.)	COLYD.)	(CU.YD.)	(CU.YD.)	Overbican
Date	*	Method	(L)		2	(21)								
03/02/93	-	DHD130A	45		1.50		30.00		03/03/93		=		10.5	4.7%
03/10/93	-	DHD130A	R	45	1.00	0.91	10.00	49.45	03/10/93		18		12.8	40.1%
07/14/93	-	DHD130A	170	52	10.25	2.25	11.22	24.44	07/14/93			46	39.7	15.9%

Total Drill Time = Average Penetration Rate =

12.75 Hours 13.33 Feet / Hour

3.16 Hours 31.65 Feet / Hour

Total Redrill Time = Average Penetration Rate =

Verticality Information

1.27" N X 2.29" E 25.55 24.76

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments: Connected with pile 432

Primary Pile # 461 Area "A"

		Overbreak		17.1%	
	Theoretical	(CU.YD.)		39.7	
	Spec.	Concrete (CU.YD.)		46.5	
LL CONSTRUCTION	Non-Spec.	Concrete (CU.YD.)			
WALL CONS		Grout (CU,YD.)			
CUT-OFF		Concrete		09/10/93	
	ite	Redrill (FT / HR)			
	Penetration Rate	Drill (FT / HB)	(1117)	16.59	
		Redrill	(SUL)		
	Pure Drill Time		(SLL)	10.25	
		Redrill			
MILION	Drill Footage		=	170	
FE WALL EXCAVA	THE PROPERTY OF	Q,	Method	DHD130A	
		Rig	*	2	
		Drilling	Date	£6/60/60	

Total Drill Time = Average Penetration Rate =

10.25 Hours 16.59 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

0" N/S X 0" E/W 24.76 24.56 At Full Depth = Verticality Information

S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 462 Area "A"

CUT-OFF WALL CONSTRUCTION	Non-Spec. Spec. Theoretical	Concrete Grout Concrete Concrete Volume Overbreak	26/5	
IT-OFF WALL CONSTRUCTION		Grout (CU,YD.)	26/5	
<u>ರ</u>	n Rate	Drill Redrill C	13.97	
	Pure Drill Time	HPS) (HPS)	2.17	
ATION	Drill Footage	Drill Redrill	071	
LIT-OFF WALL EXCAV	uioment	Rig Excavation	1 DHD130A	
	02	Drilling	07/26/93	

Average Penetration Rate = Total Drill Time =

12.17 Hours 13.97 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

At Full Depth = S-ARC North = S-ARC South =

1.5" S X 0" E/W 24.56 28.65

Quality Coring: None.

Comments:

Primary Pile # 463 Area "A"

13.4% Overbreak 39.7 Theoretical Volume (CU.YD.) \$ Spec. Concrete (CU.YD.) r-OFF WALL CONSTRUCTION
nerete Grout Concrete
Sate (CU.YD.) (CU.YD.) Grout (CU.YD.) 09/22/93 Concrete Date Redrill (FT / HR) Penetration Rate Drill (FT / HB) 17.29 Pure Drill Time Drill (HRS) 9.83 Redrill (FT) Drill Footage Drill (FT) 170 CUT-OFF WALL EXCAVATION Excavation Method **DHD130A** 8 Ę 09/22/93 Drilling Date

Average Penetration Rate == Total Drill Time =

9.83 Hours 17.29 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

0" N/S X 2.5" E 28.65 17.51 At Full Depth =

S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 464 Area "A"

13.83 Hours 12.29 Feet / Hour

Total Drill Time'≔ Average Penetration Rate =

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

5.57" S X 3.54" E

17.51 34.39 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments: Cavity 41-52'

Primary Pile # 465 Area "A"

		Acceptant	Overbreak		13.4%	
	Theoretical	W-F-	(CU,YD.)		39.7	
	Se oc	obec.	COU.YD.)		45	
TRUCTION		Non-spec.	Concrete			
UT-OFF WALL CONSTRUCTION			Grout	100		
ICUT-OFF			Concrete	COLON	09/27/93	
			Redrill (1)			
		Penetration Rate	Dill	ונויוווי	16.07	
		•	Redrill	CHILS		
		Pure Drill Time	E S	(CHI)	10.58	
			Redrill	(FI)		
14014	201	Drill Footage	Drill	(EI)	170	
AND COLUMN	FF WALL EXCAV		Excavation	Method	DHD130A	
	2-123	Farinamen	Rig	#	2	
			Drilling	Date	09/27/93	

Total Drill Time = Average Penetration Rate =

10.58 Hours 16.07 Feet / Hour

None

Total Redrill Time = Average Penetration Rate ==

.5" N X 1.5" E 34.39 22.38 At Full Depth = S-ARC North = S-ARC South = Verticality Information

Quality Coring: None.

Area "A"

•		Will Condition of the Condition	TION.						CUT-OFF	WALL CONS	TRUCTION			
		DEF WALL EXCAVA	25								- Caro	Chan	Theoretical	
		1	1 Drill Footsce		Pure Drill Time		Penetration Rate	fe			NOIL-Spec	300	N-F-	James American
Drilling	Rig	Excavation	Orill	Redrill	Drill	Redrill	Drill	Redrill	Concrete	Grant	Concrete	CONCIERTO (CU.YD.)	(CU.YD.)	CVerbiean
Date	*	Method	E	E	(HHS)	E S	(F1 / HR)	MLI / LIII	Cale	121.22				
07/29/93	-	DHD130A	170		10.58		16.07		07/29/93			54	39.7	36.0%

10.58 Hours 16.07 Feet / Hour

Total Drill Time = Average Penetration Rate =

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

2.32"S X .52"W

22.38 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 467

Area "A"

		American	Overbloan		7 18.4%	
	Theoretical	Vote mo	(CU.YD.)		39.7	
	Spec		COLUM		47	
TRUCTION	Non-Spec	0000	Concrete	20.00		
ICUT-OFF WALL CONSTRUCTION		,	Grouf	101.00		
ICUT-OFF		_	Concrete	Cale	10/06/93	
		are	Redrill	(FI/HH)		
		Penetration H		(F1 / HH)	15.11	
			Redrill	(HRS)		
		Pure Drill Time	Drill	(HRS)	11.25	
			Redrill			
1401	NOIL	Orill Footage	Drill	(FI)	170	
AVA AVA I I SATURATE	JEE WALL EXCAVE		Excavation	Method	DHD130A	
	7-100	Conjection	Rid	*	2	
			Drilling	Date	10/05/93	

Total Drill Time = Average Penetration Rate =

11.25 Hours 15.11 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

2'SX1"E 27.13 24.83 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 468 Area "A"

			140						CUT-OFF V	ICUT-OFF WALL CONSTRUCTION	TRUCTION	
		OFF WALL EXCAVA	202								Mon-Chor	Spec
			Daill Ecobora		Arre Drill Time		Penetration Hate	9			300	indo
	Foundmen	=	UIII rowaye		200		7. 0	100	Constitution	1	Concrete	Concrete
Crillia	Ş	Excavation	lii-O	Redrill		Hedrill	5		and and and			
5	P :	Motherd	Ę	Œ	HRS)	E BS	(FI/HR)	FI/HE	Lare	20.10.	20.00	2
Cafe	#	Medica										
02/30/93	_	DHD130A	170		12.33		13.79		08/02/33			75

88.9%

39.7

Overbreak

Theoretical Volume (CU.YD.)

12.33 Hours 13.79 Feet / Hour

Total Drill Time = Average Penetration Rate =

Total Redrill Time = Average Penetration Rate =

Verticality Information

3"SX5"E 24.83 29.43 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments: Hole collapsed - cavity 34-50'; Took 32 cy of concrete to fill

Primary Pile # 469

Area "A"

	Theoretical	Constitution	(CU.YD.) (CU.YD.)		45 39.7 13.4%	
ICUT-OFF WALL CONSTRUCTION			Concrete Gro		10/04/93	
	American Date	u natio	Drill Redrill	(F1 / HM) (F1 / HM)	16.46	
		emi	Redrill	(HHS)	10.33	
	1	Pure Du	Redrill Drill	(F)		
NO.	TION		Drill	E	170	
PENNANT EVOAVA	FF WALL EACAVE	4	Excavation	Method	DHD130A	
	0-100	Continuo	Rid	*	2	
			Drilling	Date	10/04/93	

Total Drill Time = Average Penetration Rate =

10.33 Hours 16.46 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

1" S X 3.5" E 29.43 29.44 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 470 Area "A"

	110	AVA - 500	MOIT						CUT-OFF V	VALL CONS	TRUCTION			
	200	JEE WALL DAUGNY	201								Mar Caco	Spec	Theoretical	
			Drill Footson		Pure Drill Time		Penetration Hate	Ite			MOII-Spec	300	The section	
		1						17770	Character	1	Concrete	Concrete	OF IND	XEE CENS
Cuilling	.S.	Excavation		Redrill	٥	Redrill	5	HILDON.	Concrete	פנסת				
5	27 :	10000	Ę	Ę	(HBG)	HRS	FT/HR	FT/HB	Date	(CU:VD:)	(CU.YD.)	(.07.0.)	(CO.1D.)	
Date	*	Memod			2	2								
08/07/93	-	DHD130A	171		11.00		15.55		08/06/93			69.5	39.9	74.0%

Total Drill Time = Average Penetration Rate =

11.00 Hours 15.55 Feet / Hour

Total Redrill Time = Average Penetration Rate =

Verticality Information

1" N X 2" E 29.44 26.27 At Full Depth = S-ARC North = S-ARC South = Quality Coring: 6" Joint core to 29.6' on 10/30/93

Comments: Connected to pile 438

Primary Pile # 471 Area "A"

_	1	ALL LAVALLE EVOAVA	HOIL						CUT-OFF V	WALL CONSTRUCTIO	TRUCTION			
	2-1-23	TANCE MALL EXCENT	200								Alam Cana	Cooco	Theoretical	
	Common	+	Drill Footage		Pure Drill Time		Penetration Rate	10			NOI-Spec	3	in continue	A
Drilling	Rig	Excavation	Drill	Redrill	Drill	Redrill	Drill	Redrill	Concrete	Grout	Concrete	Concrete	(CU.YD.)	CVerbreak
Date	#	Method	(F)	Œ	(HRS)	(CHH2)	(F1 / FIN)	(00/13)	Cald	100.00				
10/01/93	2	DHD130A	. 170		12.41		13.70		10/02/93			46	39.7	15.9%

Total Drill Time = Average Penetration Rate =

12.41 Hours 13.70 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

.75" N X 0" E/W 26.27 22.94 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments: See pile 470

Secondary Pile # 472 Area "A"

		DEE WALL EYCAVA	NOIT						CUT-OFF V	VALL CONS	TRUCTION			
	100	OFF WALL LADAY	Drill Footage		Pure Drill Time		Penetration Ra	te			Non-Spec.	Spec.	Theoretical	
	Edulpine	_	- C	Dodeill			Ē	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
Drilling	훈 :	Excavation	Ē 6		HBC	HES	(FT / HR)	(FT / HR)	Date	(CU.YD.)	(CU.YD.)	(CU.YD.)	(CU.YD.)	
Date	*	Memod			2	2								
08/10/93	-	DHD130A	2		3.91		16.37		08/11/93		43.5		14.9	191.1%
									40,007,000			45	30.7	13.4%
10/02/93	2	DHD130A	170	22	6.75	3.6/	15.70	\$	06/10/01	-		}	i	

Total Drill Time =

10.66 Hours 15.95 Feet / Hour

Average Penetration Rate ==

3.67 Hours 17.44 Feet / Hour

Total Redrill Time = Average Penetration Rate =

1.75"S X 1.5"E At Full Depth = S-ARC North = S-ARC South = Verticality Information

Quality Coring: None.

Comments:

Primary Pile # 473

Area "A"

	NEE WALL EXCAVA	NOIL						CUT-OFF WALL CONSTRUCTION	WALL CONS	TRUCTION			
	יייייייייייייייייייייייייייייייייייייי	Drill Footage		Pure Drill Time		Penetration Ra	Rate			Non-Spec.	Spec.	Theoretical	
D. D.	ă	Dial (Redrill	•1	Redrill		Redrill	Concrete	Grout	Concrete (CU.YD.)	Concrete (CU,YD.)	Volume (CU.YD.)	Overbreak
*	Method	(1)		CHES	CULI CULI	UU / LU	(1117)	200					
-	DHD130A	æ		3.00		21.00		08/22/93		83		14.7	117.5%
N	DHD130A	170	æ	9.83	4.33	10.89	14.55	06/30/33			55.5	39.7	39.8%
1													

Total Drill Time = Average Penetration Rate =

12.83 Hours 13.25 Feet / Hour

Total Redrill Time = Average Penetration Rate =

4.33 Hours 14.55 Feet / Hour

Verticality Information

0"N/S X 3.58"E 29.04 At Full Depth = S-ARC North = S-ARC South =

26.69

Quality Coring: None.

Comments: Cavity at 62'

Secondary Pile # 474 Area "A"

		WALL TO VALLE	I A CIT						CUT-OFF	WALL CONSTRI	TRUCTION			
-	5-100	T WALL EXCAVA	202								20-0	Spoo	Thornotival	
۲	Automorphism Company		Drill Footage		Pure Drill Time		Penetration Rate	ite			NON-Spec	3000	The control	Australy.
*			Service and		= 0	-	===	linboa	Concrete	1	Concrete	Concrete	Nomme	Cverbreak
Drilling	Rig	Excavation		Hedrill	5	Hedu			and a			(CX IV)		
	*	Method	Œ	Œ	(HRS)	(HRS)	(FI / HH)	(FI / HH)	Uate	(01.00)	20.10.			
	-										4		140	30.06
3/16/93	-	DHD130A	8		2.43		24.69		08/17/93		0.60		Ì	83.53
}	_											Æ	707	13.4%
0/11/93	2	DHD130A	170	8	7.41	3.50	14.84	17.14	58/11/01			?	Š	
	_													

Total Drill Time = Average Penetration Rate =

9.84 Hours 17.28 Feet / Hour

Total Redrill Time = Average Penetration Rate =

3.50 Hours 17.14 Feet / Hour

Verticality Information

0" N/S,X 2" E 26.69 26.05 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments: Cavity

Primary Pile # 475 Area "A"

	Theoretical	Variation of the state of the s	_	(CX.IO			39.7 20.9%	
	Spec.				7.00		48	
L CONSTRUCTION	Non-Spec.		e de la conscionation de l		200.000			
WALL CONS			1		(70.10.)			
CUT-OFF			Contractor	Series of the se	Care		09/28/93	
	Ş	1	11770		E			
	D. C. L. C.	refiellation hate	-		HH/H		12.83	
		•		Hedrill	E SE			
					EBS		13.25	
				Redrill	٥			
NOIT	TION				٤		170	
CE WALL EVEAVA	JEF WALL EACHY	*	1	Excavation	Mothod	Monio	DHD130A	
H	20100	Edinon		Rig	7	+	3	
				Drilling	9	Calle	86/82/60	

Total Drill Time = Average Penetration Rate =

13.25 Hours 12.83 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

.5'S X 2.26" E 26.05 26.02 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 476 Area "A"

	CHIT-OFF	FF WALL EXCAVE	ATION						CUT-OFF W	VALL CONS	CONSTRUCTION			
	Falling	-	Drill Footage		Pure Drill Time		Penetration Rate	te			Non-Spec.	Spec.	Theoretical	
Orilling		Evenation	i c		Drill	Redrill	Dilli	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
5 to C	P *	Mathod	Œ	E	HRS	HRS	(FT / HR)	(FT / HR)	Date	(CU.YD.)	(CU.YD.)	(CU.YD.)	(CU.YD.)	
Date	£	Single												
08/19/93	_	DHD130A	78		2.92		26.71		08/20/83		98		18.2	97.6%
													2	40 40
10/02/93	2	DHD130A	170	78	90.9	4.83	15.13	16.15	10/06/93			t. 4	7.83	817

Total Drill Time = Average Penetration Rate =

9.00 Hours 18.89 Feet / Hour

4.83 Hours 16.15 Feet / Hour

Total Redrill Time = Average Penetration Rate =

Verticality Information

1"SX3"E

26.02 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 477 Area "A"

		Overbreak	23.4%
	Theoretical	Volume (CU.YD.)	
	Spec.	Concrete (CU.YD.)	49
STRUCTION	Non-Spec.	Concrete (CU.YD.)	
CUT-OFF WALL CONSTRUCTION		Grout (CU.YD.)	
CUT-OFF		Concrete	09/25/93
		Redrill (FT / HR)	
	Penetration Rate	Orill (FT / HR)	14.57
		Redrill	
	Pure Drill Time	Drill	11.67
	Drill Footage	Redrill	
ATION			170
FF WALL EXCAV		Excavation	DHD130A
CUT-0	Fauipment	Rig.	2
		Drilling	Dare 09/24/93

Total Drill Time = Average Penetration Rate =

11.67 Hours 14.57 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

3"S X 4.53"E

Verticality Information

23.72 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments: Part of verticality device lost in hole.

Secondary Pile # 478 Area "A"

		TEE WALL EXCAVA	NOIL						CUT-OFF W	VALL CONS	TRUCTION			
		A WALL LACAN			Days Drill Time		Penetration Rate	ā			Non-Spec.	Spec.	Theoretical	
		-	DIIII LOOKSOE										West and	1
Drilling	Š	Evenation	ii.C	Redrill	Drill	Redrill		Redrill	Concrete	Grout	Concrete	Concrete	volume	CVERTEREN
	₽ *	Madaum	Ę	Ę	HRS	HRS	(FT / HB)	(FT / HR)	Date	(CU:YD)	(CU.YD.)	(CU:YD:)	(CC.YD.)	
Care	*	Meanon			2									
00/11/00	,	40070110	8		1 83		33.88		08/18/93		32.5		14.5	124.5%
08/1/90	_	שפוחח	3		3									
						!			00,100			AK	20.7	12 /0/
10/02/93	0	DHD130A	170	B	7.50	4.17	14.40	14.87	25/40/01			?	1.63	
		_												
	•				-	1								

Total Drill Time =

9.33 Hours 18.22 Feet / Hour

Average Penetration Rate =

Total Redrill Time = Average Penetration Rate =

4.17 Hours 14.87 Feet / Hour

Verticality Information

1"SX2"E

28.30 26.72 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments: Cavity at 62'

Primary Pile # 479 Area "A"

		Overbreak	9 145.9%	
	Theoretical	(CU.YD.)	40.9	
	Spec.	Concrete (CU.YD.)	100.5	
STRUCTION	Non-Spec.	Concrete (CU.YD.)		
T-OFF WALL CONSTRUCTION		Grout (CU.YD.)	·	
CUT-OFF		Concrete	09/21/93	
	ıte	Redrill (FT / HR)		
	Penetration Rate	Drill (FT / HR)	11.73	
		Redrill	2	
	Pure Drill Time	Drill	14.92	
		Redrill		
VIION	Drill Footage	= 6	(71)	
FF WALL EXCAVA		Excavation	DHD130A	
CITT-O	Farinamen	Rig	2	
		Drilling	Date 09/20/93	

Total Drill Time = Average Penetration Rate ==

14.92 Hours 11.73 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

1"SX3.27"E 26.72 19.10 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments: Deep cavity at 165-168', other cavities also in pile.

Secondary Pile # 480 Area "A"

Overbreak 39.7 13.8 Theoretical Volume (CU.YD.) 45 Spec. Concrete (CU.YD.) ह CUT-OFF WALL CONSTRUCTION

Concrete Grout Concrete

Date (CU,YD.) (CU,YD.) Grout (CU.YD.) 08/06/93 11/03/93 Concrete Date 16.39 Redrill (FT / HR) 16.25 32.24 (FT/HR) Dii 3.60 Redrill (HRS) Oure Drill Time Drill (HRS) 1.83 6.83 ß Redrill (F) Drill Footage Drill (FT) B 170 CUT-OFF WALL EXCAVATION Excavation DHD130A **DHD130A** N ē E 08/02/93 10/06/93 Drilling Date

13.4% 146.8%

Total Drill Time = Average Penetration Rate =

8.66 Hours 19.63 Feet / Hour

3.60 Hours 16.39 Feet / Hour

Total Redrill Time = Average Penetration Rate =

At Full Depth =

Verticality Information

5.6" S X 0" E/W 19.10 30.82 S-ARC North = S-ARC South =

Quality Coring: None.

Comments: Lost bit in hole; Cavity at 60'deep

Primary Pile # 481

Area "A"

	,	Chechrony	Vaciona Control		7 20.9%	
	Theoretical	Vohimo	(CU.YD.)		39.7	
	Spec		(CU.YD.)		48	
TRUCTION	Grout Concrete (CU.YD.)					
CUT-OFF WALL CONSTRUCTION						
CUT-OFF			Concrete	Date	09/11/93	
		116	Redrill	(FI / HID)		
		Penetration HE		(FI / HH)	15.93	
		•	Redrill	(HHS)		
		Pure Drill Time	Orill	(HRS)	10.67	
			Redrill	<u>E</u>		
INCIE	NOIL	Drill Footage	Drill	E	170	
ALL POOR	JEE WALL EACHVA	+	Excavation	Method	DHD130A	
1	100	omain to	Rid	*	2	
			Drilling	Date	09/16/93	

Total Drill Time = Average Penetration Rate =

10.67 Hours 15.93 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

2.5' S X 1.5' W 30.82 39.35 At Full Depth =
S-ARC North =
S-ARC South =

Quality Coring: None.

Area "A"

		AVA CVT LIAM	HON.						CUT-OFF WALL CONSTRUCTION	WALL CONS	TRUCTION			
	2-100	JEE WALL EACAVE			1.1.1.1		Donotration Bate	-to			Non-Spec.	Spec	Theoretical	
	A		Drill Footage				- alguary i E					Comments	Volumo	Charbrook
				Ī	=	Illustra C	7	Dedri	Concrete	Grout	Concrete	COLCIERE	ACTION	CAGIDICAN
Drilling	Rig	Excavation		Hedri	E §			FT / HB	Date	(CI VD)	(CU.YD.)	(CU.YD.)	(CU.YD.)	
246	, #	Method	Œ	E	(HAS)	(LIKE)	מט/ ובו		200	100				
Cald	-										1		•	
			ì		2 0 2		19.30		08/16/93		8		5.7	106.3%
08/13/93	=	DHD130A	4/		3									
									_			6	39.7	5.8%
	1	A00.10	170	7.4	4.83	1.42	19.88	17.76	36/60/1-			!		
11/09/93	_	AND LONG	2											

Total Drill Time = Average Penetration Rate =

8.66 Hours 19.63 Feet / Hour

Total Redrill Time = Average Penetration Rate =

1.42 Hours 52.11 Feet / Hour

Verticality Information

8.5" N X 2.76" E 39.35 11.83

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 483

Area "A"

		_	_			26	7	
		Jourhand				38.5%		
	Theoretical	100	ADMINI	(CU.YD.)		39.7		
	Spec. Concrete (CU.YD.)							
TRUCTION	Non-Spec.	Maria Speci	Concrete					
ICUT-OFF WALL CONSTRUCTION			-		7			
ICUT-OFF			Concrete	Date	Naio	00/45/03	8	
			Dodeill		AL LIN			
			27.00		ILI/HB	-	13.11	
				Hedrill	HKS)			
		Pure Drill Time		5	HRS)		11.25	
				Redrill				
14014	NON	Daill Ecotorio	S S S S S S S S S S S S S S S S S S S	iio	<u>E</u>		170	
	FF WALL EXCAVE			Excavation	Method		DHD130A	
	0-100			RS	*		2	
				Drilling	Date	2000	09/15/93	

Total Drill Time = Average Penetration Rate =

11.25 Hours 15.11 Feet / Hour

None Total Redrill Time = Average Penetration Rate =

Verticality Information

1.5" N X 5" W 11.83 18.63 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 484 Area "A"

			1401						CUT-OFF W	WALL CONSTRUCTION	TRUCTION			
		JEF WALL EXCAVE	NO.								Non-Spor	Spec	Theoretical	
			Drill Ecotade		Pure Orill Time		Penetration Hate	te			300	3	No. b.	O materials
							17.00	Dodrill	Concrete	Sure at	Concrete	Concrete	AOMINE	CVERTICIENT
Drilling	Ria	Excavation	E C	Redrill	5	Hedri	5 t		Detec C			(CU.YD.)	(CU.YD.)	
	9	Method	Ē	E	(HRS)	2 E	FI / HR)	מנו / ונו	Date	20.10.				
Date	*	Monto												
							70.00		08/12/93		67		16.8	191.4%
08/11/93	-	DHD130A	72		38.		5.65		3					
												A6	39.7	15.9%
00,000	c	אטאַטאַט	170	72	4.50	3.33	21.78	23.62	10/20/30			2		
3/6/01		_												

Total Drill Time = Average Penetration Rate =

6.33 Hours 26.86 Feet / Hour

3.33 Hours 21.62 Feet / Hour

Total Redrill Time = Average Penetration Rate =

Verticality Information

3.5" S X 5.5" W

At Full Depth = S-ARC North = S-ARC South =

18.63 30.18

Quality Coring: None.

Comments:

Primary Pile # 485 Area "A"

		Acoustico C	CVED ION			126.6%	
	Theoretical	-	_	(CU.YD.)		40.5	
	Snec	-	Concrete	(Cr. VD.)		6	
TRUCTION	Non-Snor	100	Concrete	(A)			
CUT-OFF WALL CONSTRUCTION			t out		100. DO		
CUT-OFF			Concrete	or or or or or or or or or or or or or o	Pale	09/14/93	
		10	Hirton		(HI / HI)		
	Donostropicon Dato		-		(FI / HH)	20.85	
				Hedri	(HRS)		
		Pure Drill Time			(HRS)	8.25	
	-			Redrill	ED		
HOT.	NOIL	I Drill Ecotage			Œ	172	
AVA COVER 1	FF WALL EXCAV			Excavation	Method	240	
	5-155		Eduloment	Rid	*	2	
				Drilling	Date	09/13/93	

Total Drill Time = Average Penetration Rate =

8.25 Hours 20.85 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

.25" S X 0" E/W 30.18 32.22

Verticality Information

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments: Connected with pile 455; cavity 49-65'

Secondary Pile # 486 Area "A"

•	F	AFE MALL EVENIA	MOIT						CUT-OFF WALL CONSTRUCTION	VALL CONS	TRUCTION			
	00	JEE WALL EAUAYA	101								Non-Spec	Spec	Theoretical	
	- Alimmon	14	Drill Footage		Pure Drill Time		Penetration Hate	- 1			100		Vak.m.	Acceptant
	i change		ali-C	Dodrill	iii.	Redrill	Dii	Redrill	Concrete	Grout	Concrete	Concrete	AOMUMB	Cverprear
Dulling	Ď Ĭ	Excavation	5 (1007	(ADC)	(AH / FE	FT / HR	Date	(CL YD)	(CU:VD:)	(CU.YD.)	(CU.VD.)	
Date	*	Method	E C		221	2								
														,000
07794/03	_	DHD130A	72		2.33		30.90		07/22/93		42		16.8	149.8%
26/12/10												5	8	à
	,	***************************************	44	7.5	5	2.67	17.82	26.97	10/20/93			54	7.85	S.33
10/19/93	_	ASSIGNA		7,		i								

Total Drill Time = Average Penetration Rate =

7.83 Hours 21.71 Feet / Hour

Total Redrill Time = Average Penetration Rate =

2.67 Hours 26.97 Feet / Hour

Verticality Information

4" N X 2" E 32.22 21.23

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 487

Area "A"

	_	_	AUTHON				20.7			
ISTRUCTION	Non-Spec	1000	Concrete	9	_					
CUT-OFF WALL CONSTRUCTION			Srzit Grzit	_	(CO.YD.)			/93		
CUT-O			Concrete		Cate			09/10/93		
		_	Dodail	5	FT/HE					
		Penetration Hate	-	5				16.07		
			11770	Heduli	E	2				
	ď	Pure Drill Time	-	5	(HBC)	2		10.58		
				Redri	Ę					
NOIT	1011	I Drill Footsde	-	2	Ę			170		
AVAUL EYCAVA	THE PARTY OF THE		1	Excavation		Method		DHD130A		
	2	Farinmen	-dan	Rio	2	#		0	ı	
				Drilling		Date		00/10/03	3 3	

Total Drill Time = Average Penetration Rate =

10.58 Hours 16.07 Feet / Hour

None Total Redrill Time = Average Penetration Rate ≈

Verticality Information

At Full Depth = S-ARC North = S-ARC South =

.5" N X O" E/W 21.23 28.68

Quality Coring: None.

Comments: Cavity 50-70' deep

Secondary Pile # 488 Area "A"

	1	CE MAIL EVENAVA	TION						CUT-OFF WAI	VALL CONS	TRUCTION			
	2 - 3	LI WALL EACHY			ı						Non-Snor	Spec	Theoretical	
	Editionant		Drill Footage		Pure Drill I me		Penetration rate	9			المرا مامد			The state of
	2		===	Dodnill	-	Radrill	ii.C	Redri	Concrete	Grout	Concrete	Concrete	Volume	CVerbreak
Dulling	P.G	Excavation	5 (100	7000	(FT / HP)	(FT / HR)	Pate	(CU.ND)	(CU.YD.)	(CU.YD.)	(CU.YD.)	
Date	*	Method	Ē		CHIL	2								
											1		011	Š
07146/02	7	DHD130A	98		1.30		46.15		07/16/93		72		0.4	86178
06/01/10	-													
			k	9	0 0	02.0	1 87	80 90	08/03/93		24		17.5	37.0%
08/03/93	_	DHD130A	6	8	3	3			100000					
								3	00,000			72	70.7	765.8
10/22/03	٥	DHD130A	170	75	6.33	3.50	15.01	27.43	10/23/95			?	š	
3														

Total Drill Time =

15.66 Hours 10.86 Feet / Hour Average Penetration Rate = 5.80 Hours 23.28 Feet / Hour Total Redrill Time = Average Penetration Rate ==

Verticality Information

2" N X 2.26" E 28.68 31.00 At Full Depth =

S-ARC North = S-ARC South =

Quality Coring: None.

Comments: Cavity at 63'

Primary Pile # 489 Area "A"

	-	_	Overbreak		42.9 173.0%	
	_	_	Volume			
	Snor	2000	Concrete	CU.TU.)	117	
CONSTRUCTION	Nico-Sper	الما عمد	Concrete	(CO.YU.)		
WALL CONS			Grout	(CO.VD.)		
CUT-OFF			Concrete	Date	08/28/93	
		ITE	Redrill	(FT / HR)		
		Penetration Hate	Drill	(FT/HR)	9.30	
			Redrill	(HRS)		
		Pure Drill Time	Drill	(HRS)	19.74	
			Redrill	Œ		
MOIT	101	Drill Footage	Drill	Œ	183.5	
FE WALL EVENIA	THE WALL EACHY		Excavation	Method	DHD130A	
1110	2 - 5	Commission	Rich	"*	2	
			Drilling	Date	08/27/93	

Total Drill Time = Average Penetration Rate =

19.74 Hours 9.30 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

5.21" N X 3.13" E At Full Depth =

31.00 S-ARC North = S-ARC South =

No Overlap at Full Depth, Corrected with Conforming Pile.

Quality Coring: None.

Comments: Used 489/490 conforming pile for sump. Lost air in hole at 157'.

Secondary Pile # 490 Area "A"

		AVA OVE I FACTOR	TION						CUT-OFF WALL	WALL CONS	L CONSTRUCTION			
	0-100	IFF WALL EXCAVE	NO.		1		Donotration Bate	to			Non-Spec.	Spec.	I Deoretical	
	nomai:		Drill Footage		Jure Drill I me		CHENGINALIN			-	Comorato	Concrete	Volume	Overbreak
Drilling	Rid	Excavation	Drill	Redrill	Dull	Redrill		Hedrill	Concrete		(CU.YD.)	(CU.YD.)	(CU.YD.)	
Date	*	Method	Œ		(HRS)	(HHS)	(F1 / F1N)	ליון / וווא	Caro	2				
00,00,00	•	DHD1304	25		1.67		34.13		07/12/93		ន		13.3	72.8%
07/12/95					i c	5	r.	00 61	07/19/93		8		16.1	123.4%
07/19/93	-	DHD130A	8	/c	gn;	3.6	3					•	8	90 00
10/30/93	2	DHD130A	170	89	10.33	3.50	9.78	19.71	10/30/93			44		

14.05 Hours 12.10 Feet / Hour

Total Drill Time = Average Penetration Rate =

Total Redrill Time = Average Penetration Rate =

6.50 Hours 19.38 Feet / Hour

Verticality Information

At Full Depth =

5.53" S X 3.52" E No Overlap at Full Depth, Corrected With conforming Pile. 23.51 S-ARC North = S-ARC South =

Quality Coring: None.

Comments: Cavity at 69'

Primary Pile # 491

Area "A"

		reak			13.4%	
	_	Overbreak	-	_	39.7	
	Theoretica	Volume	(CU.YD.)		8	
	Spec	Conomic	(CU.YD.)		45	
CTION	Spec - Cr	2000	COLVID			
ALL CONSTRUCTION	-	_	Grout Gri VD	1		
TOUT-OFF WALL			Concrete	raie	09/08/33	
		9	Redrill	(FI / HM)		
		Penetration Ra	Orill	(FI / HH)	30.91	
			Redrill	(HRS)		
		Pure Drill Time	Dill	(HRS)	5.50	
			Redrill	Œ		
	NOL	Drill Footsole	Drill	(F)	170	
	F WALL EXCAVA		Excavation	Method	240	
	O-TI		Rich	"*	8	
			Orilling	Date	09/08/93	

Total Drill Time = Averåge Penetration Rate =

5.50 Hours 30.91 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

7.72°S X 3.09°E 23.51 37.83 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 492 Area "A"

12.67 Hours 13.42 Feet / Hour

Total Drill Time = Average Penetration Rate =

4.75 Hours 18.95 Feet / Hour

Total Redrill Time = Average Penetration Rate =

Verticality Information

1.26" N X 2.28" E At Full Depth = S-ARC North = S-ARC South =

37.83 28.50

Quality Coring: None.

Comments:

Primary Pile # 493 Area "A"

1						%	
		O materials	COMPOSIT			13.4%	
	Theoretical	1	AUMON	(CU.YD.)		39.7	
	Spec	9		(CU.YD.)		45	
TRUCTION	Non-Spor	300	a diagram	(CL VD.)			
CUT-OFF WALL CONSTRUCTION			-		20.00		
CUT-OFF			Constitution	Colciete	Callo	10/09/93	
			2770	Hedrill 77	מנו / ונו		
		Penetration Hate			(FI / NR)	14.89	
				Hedrill	QH2		
		Pure Drill Time			(HHS)	11.42	
				Redrill	E		
MICH	100	Drill Footage		Duil	E	170	
TENANTI PVONI	PE WALL EACAVE			Excavation	Method	DHD130A	
1	うしこ	nomai io		Z.	*	2	
	_			Drilling	Date	10/09/93	

Total Drill Time = Average Penetration Rate =

11.42 Hours 14.89 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

2.52" N X 2" E

28.50 21.32 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 494

Area "A"

			(CU,YD.) (CU,YD.)	L	53.5 39.7 34.8%
CONSTRUCTION	Non-Spec.		Grout Concrete	-	
CUT-OFF WALL		_	Concrete Gro	-	07/10/93
	onotration Bate	NA COLO	Orill Redrill		11.93
		Pile	Drill Redrill		14.25
NC		Unil Footage	Redrill	(FI) (FI)	170
OFF WALL EXCAVATION	TI WALL LAGAN		Excavation	Method	DHD130A
		Edulomen	Drilling Rig	Date #	1 07/09/93

14.25 Hours 11.93 Feet / Hour

Total Drill Time = Average Penetration Rate =

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

1" S X 2.75" E 21.32 24.89 At Full Depth =

S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 495

Area "A"

		Out the same	CVeliblean		19.7%	
	Theoretical		(CU,YD.)		39.7	
	Spec	1	Concrete		47.5	
L CONSTRUCTION	Non-Spec	300	Concrete			
WALL CONS			Grout	77.7		
CUT-OFF WALI			Concrete	Caro	10/25/93	
		ite	Redrill	MU7 LJ		
		Penetration Hate		מען/וטן	26.86	
			Redrill	CHES		
	1	Pure Drill Time		(SHE)	6.33	
			Redrill	(F)		
MULTION	110111	Orill Footage	Drill	(FT)	170	
EE WALL EXCAVA	יייייייייייייייייייייייייייייייייייייי	4	Excavation	Method	XL-24	
STITE OF		Equipment	Rig	#	2	
			Drilling	Date	10/25/93	

Total Drill Time = Average Penetration Rate =

6.33 Hours 26.86 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

2" S X 1" W 24.89 19.98 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 496

Area "A"

•	11.0	PP MAIL EVENAVI	TION						CUT-OFF \	T-OFF WALL CONSTRUCTION	TRUCTION			
	5-155	TH WALL EXCAV	201								Nico-Char	2000	Theoretical	
	100		Drill Footsde		Pure Drill Time		Penetration Hate				Mail Spec.	3	Making	American C
	Edutorina		08100	Ī	=		Ti-C		Concrete	Grout	Concrete	Concrete	NOMITTE	CVENDIMEN
Drilling	Rig	Excavation	5	III G		HBS	FT / HR	FT/HB	Date	(CU.YD.)	(CU.YD.)	(CU.YD.)	(CU.YD.)	
Date	*	Method			2	2		ır						
			Š.		300		88		07/13/93		83		13.8	96.9%
07/13/93	-	DHD130A	B		3									
			į			C C	11.48	23.60	07/24/93		88		39.7	116.6%
07/24/93	-	DHD130A	170	78	9.07	3	2							
						90 4		20.00	08/21/93			47	39.7	18.4%
08/20/93	-	DHD130A	170	0/1		9		3						

Total Drill Time = Average Penetration Rate =

11.92 Hours 14.26 Feet / Hour

8.16 Hours 28.06 Feet / Hour

Total Redrill Time = Average Penetration Rate =

6.29°S X 0°E/W

At Full Depth = Verticality Information

19.98

S-ARC North = S-ARC South =

Quality Coring: None.

Comments: Cavity at 59'; Hole collapsed.

Primary Pile # 497 Area "B"

CUT-OFF WALL CONSTRUCTION 12/03/93 Concrete Date Redrill (FT / HR) Penetration Rate
Drill
(FT / HR) 34.55 Redrill (HRS) Jure Drill Time Drill (HRS) 4.92 Redrill (F) Drill Footage Drill (FT) 2 CUT-OFF WALL EXCAVATION Excavation XL-24 quipment Rig N 12/02/93 Drilling Date

44.8%

39.7

57.5

Overbreak

Theoretical Volume (CU.YD.)

Spec. Concrete (CU.YD.)

Non-Spec. Concrete (CU.YD.)

Grout (CU.YD.)

Average Penetration Rate = Total Drill Time ==

4.92 Hours 34.55 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

At Full Depth = Verticality Information

3.18" S X 0" E/W

30.92 21.99 S-ARC North = S-ARC South =

Quality Coring: None.

Comments: Numerous air connection from pile 550 to 600

Secondary Pile # 498 Area "B"

	TI	NEE WALL EXCAVA	NOIT						CUT-OFF V	VALL CONS	TRUCTION			
		TANK TOWN	Drill Footage		Pure Drill Time		Penetration Rate	te			Non-Spec.	Spec.	Theoretical	
Drilling	Rig	Ţ,	E	Redrill	Drill	Redrill	Orill (FT / HB)	Redrill (FT / HB)	Concrete	Grout (CLI YID)	Concrete (CU.YD.)	Concrete (CU.YD.)	Volume (CU.YD.)	Overbreak
Date	#	Method			CUL	2	1117111							
08/16/93	_	DHD130A	2		3.17		22.08		08/17/93		8		16.3	132.5%
10/27/93	8	240	74	6	0.33	2.25	12.12	31.11	10/28/93		8		17.3	264.6%
12/11/93	8	XL-24	170	74	3.25	267	29.54	27.72	12/11/93			47	39.7	18.4%

Total Drill Time =

6.75 Hours 25.19 Feet / Hour

Average Penetration Rate =

Total Redrill Time = Average Penetration Rate =

4.92 Hours 29.27 Feet / Hour

Verticality Information

6.26" S X 1.5" E

21.99 33.15 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments: Cavity 50-70' deep

Primary Pile # 499 Area "B"

	Non-Spec. Spec. Theoretical	Grout Concrete Concrete Volume Overpresix		39.7 139.3%	
CUT-OFF WALL CONSTRUCTION		Concrete Grout	-	12/08/93	
	Rate	Redrill (FT / HB)	*****	10.41	
	Penetration Rate	II Drill	1		
	Time	Redrill	2	16.33	
	Pure Drill	Drill	2	÷	
		Redrill			
ATION	Drill Footage	<u></u>		170	
DEF WALL EXCAV.	tu.	, M	Method	DHD130A	
	Former	Rig	*	8	
		Drilling	Date	12/07/93	

Total Drill Time = Average Penetration Rate =

16.33 Hours 10.41 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

t" S X 2" W 33.15 24.71 At Full Depth =

S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile #500 Area "B"

	11.10	V/V C/C	MOLE						CUT-OFF V	T-OFF WALL CONSTRUCTION	TRUCTION			
	0-100	IFF WALL EACAVE	NO.					3			Non-Spec	Spec	Theoretical	
	Common	-	Drill Footage		Pure Unil Ime		Penedalkon nate	- 1				Comment	Vohimo	Acethod C
Drilling	Rig	Excavation	Drill	Redrill	Drill	Redrill		Redrill CT / UD	Concrete	Ground	(CU YD.)	(CU.YD.)	(CU.YD.)	Applican
Date	*	Method	E	(FI)	(HHS)	SH.	(LI / NN)	111111111111111111111111111111111111111	Caro					
10/20/93	-	XL-24	46		0.83		55.42		10/21/93		37		10.7	244.4%
	•	AUD1304	82	46	1.67	5.50	19.16	8.36	11/06/93		8		18.2	86.7%
08/00/11	- (STOLING OF THE STOLEN	. g	. 42		4.75	11.56	16.42	01/06/94			49.5	43.4	14.0%
01/06/94	N	MOLIDIA	3	2										

11.84 Hours 15.71 Feet / Hour

Total Drill Time = Average Penetration Rate =

10.25 Hours 12.10 Feet / Hour

Total Redrill Time = Average Penetration Rate =

Verticality Information

2.5' South X 0' East / West 26.52'' 31.71"

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile #501

Area "B"

•									ICUT-OFF	WALL CONS	TRUCTION			
	CUT-OFFV	PF WALL EXCAV	A DOIN								Man Chan	Choc	Theoretical	
	Compinent	*	Drill Footage		Pure Drill Time		Penetration Rate				Non-spec.	3000	Note: 100	Jumphone
	DI III				= 0	17770	- T- C	Dodrill	Concrete	Group	Concrete	Concrete	Volume	CVERDIGEN
Drilling	Rid	Excavation	Ē	Hedrill	5	Hedu	5				5			
2	2 4	Mothod	٤	٤	HRS)	(HRS)	(FT / HR)	FI/HE	Late	(.01.02)	(20.10.)		1000	
Date	#	Monion												
12/14/93	8	XL-24	185		8.33		22.21		12/15/93			83	43.2	22.7%

Total Drill Time = Average Penetration Rate =

8.33 Hours 22.21 Feet / Hour

Total Redrill Time = Average Penetration Rate ==

None

Verticality Information

1.25" North X 1.0" West 31.71" 29.92"

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile #502 Area "B"

-	E I	SEE WALL EYCAVA	NOIL						CUT-OFF W	VALL CONS	TRUCTION			
	1	JET WALL CAURY					9				Non-Spec	Spec	Theoretical	
	-cuinmen	-	Drill Footage		Pure Unil Ime		Feneration has				3		Web	-
٥٠٠١١١١٥٥		Evenuation	li C	Redrill	E C	Redrill	Drill	Redrill	Concrete	Grout	Concrete	Concrete	Volume	CVerbreak
	2° ≠	Method	Ę	Œ	(HRS)	E RS	(FT / HR)	(FT / HR)	Date	(CU:VD:)	(CU.YD.)	(CU.YD.)	(CU.YD.)	
Late	*	Medio												
11/00/93	0	DHD130A	88		200		33.00		11/02/93		8		15.4	153.0%
25/11	i											i		707 07
01/11/94	_	DHD130A	185	98	7.42	3.07	16.04	21.50	01/12/94		•	<u></u>	43.2	<u>8</u>

9.42 Hours 19.64 Feet / Hour

Total Drill Time = Average Penetration Rate =

Total Redrill Time = Average Penetration Rate =

3.07 Hours 21.50 Feet / Hour

Verticality Information

3.5" North X 1.0" West 29.92"

At Full Depth = S-ARC North = S-ARC South =

No Overlap at Full Depth, Overlap Achieved with Conforming Pile.

Quality Coring: None.

Comments:

Primary Pile #503

Area "B"

_	1	CE MAIL EVEAVA	MOIT						CUT-OFF V	VALL CONS	TRUCTION			
		TH WALL ENDAV			1		0	إ			Non-Spec	Spec	Theoretical	
	Петин	-	Drill Footage		Pure Drill Ime		Penetration Hate				in the	deni:		Contact Contact
مرياات و	rid.	Evenation	lin'C	Redrill	Drill	Redrill	D.	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
Dulling G	2 4	Mothod	<u> </u>	Ę	HRS	(HRS)	(FT / HR	(FT / HR)	Date	(CU.YD.)	(CU.YD.)	(CU.YD.)	(CU.YD.)	
Lare	*	Manno												
11/08/93	•	DHD130A	8		3.92		21.17		11/30/93		45		19.4	132.2%
												9	007	14 10/
05/18/93	2	XL-24	185	8	3.66	3.50	27.87	23.71	05/19/94			\$	45.5	8

Total Drill Time = Average Penetration Rate =

7.58 Hours 24.41 Feet / Hour

Total Redrill Time = Average Penetration Rate =

3.50 Hours 23.71 Feet / Hour

Verticality Information

At Full Depth = S-ARC North = S-ARC South =

10.5" North X 6.0" West No Overtap at Full Depth, Overtap Achieved with Conforming Pile. 31.38"

Quality Coring: None.

Secondary Pile #504 Area "B"

		AFE WALL EXCAVA	MOIT						CUT-OFF V	WALL CONS	TRUCTION			
		*	Drill Footage		Pure Drill Time		Penetration Rate	ıte			Non-Spec.	Spec.	Theoretical	
Drilling	Rig	Excavation	Drill	Redrill	Orill	Redrill	Drill	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
Date	*	Method	Œ	(FI)	(HRS)	(HRS)	(FT/HR)	FT/HB	Date	(CO.YD.)	(CU,YD.)	(CO.YD.)	(CO.TO.)	
	,	\$000 OHO	28		25		40.51		11/04/93		28.5		14.9	90.7%
32/40/11	-	ADEI DUO	5		}									
05/04/94	-	DHD130A	185	8	8.21	3.12	14.74	20.51	05/04/94			47	43.2	8.8%

9.79 Hours 18.90 Feet / Hour

Total Dritt Time = Average Penetration Rate =

3.12 Hours 20.51 Feet / Hour

Total Redrill Time = Average Penetration Rate =

7.0°South X 5.5° West 31.38° 36.40° Verticality Information

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile #505 Area "B"

	HIS	DEE WALL EYCAVA	NO.						CUT-OFF V	VALL CONS	TRUCTION			
	2	JEI WALE LAUAN			Pare Drill Time		Donotration Bate	to the second			Non-Spec.	Spec.	Theoretical	-
	Edulomen	-	Chill roomage				ЭΙ			,			14-1-1	Acres 4
	2.0	Eventerion	- E-C	Radrill	Piro.	Redrill	5	Redrill	Concrete	Grout	Concrete	Concrete	AMILIA	CVerbicals
	Ď,	Mayarin		Ę	HBC	HRS	EH/HB	(FT / HR	Date	(CU.YD.)	(CU.YD.)	(CU.YD.)	(CU:VD)	
Cate	*	Medica			2	200								
							!		10,777	8			187	74 09%
04/11/94	8	DHD130A	8		4.50		17.78		\$/11/50	C'Y			3	
												ţ	400	700 0
06/14/94	-	DHD130A	581	86	5.25	200	80.08	40.00	06/15/94			7	43.5	
01:100	_													
			+											

9.75 Hours 18.97 Feet / Hour

Total Drill Time = Average Penetration Rate =

2.00 Hours 40.00 Feet / Hour

Verticality Information

Total Redrill Time = Average Penetration Rate =

1.0' North X 2.25' West 36.40'

No Overtap at Full Depth, Overtap Achieved with Conforming Pile. At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile #506 Area "B"

	F. 10	AVANA TVONIA	INC.I.						CUT-OFF V	VALL CONS	TRUCTION			
		THE WALL EXCAVA	202									20.00	Theoretical	
	Continuon		Onill Footage		ure Drill Time		Penetration Rate	ite			Non-Spec.	Spec.	III COLORING	
	I CHILDING!		2		la	l	27.0	ii.P.C	Constitution	-	Concrete	Concrete	Volume	280 Desc
Drilling	Rig	Excavation		Redrill		Hedrill			Conciere				(CIT YO)	
Date	*	Method	E	E	(HRS)	(HKS)	(FI / HH)	(FI / HR)	Date	CO.10.)	20.00			
	L												!	
04/43/04	c	DHD130A	74		4.75		15.58		01/31/94	12			17.3	-30.6%
10/01/0														
		3	424	7.4	2.35	1.40	86.50	52.86	02/18/94	88	16		31.5	223.6%
02/11/94	N	AL24	3	t	3	:								
					-	4.70	000	8	10/00/10			48	43.2	11.1%
04/20/94	-	DHD130A	185	135	9.00	19.	3.0		t look			2		
		The second secon												

13.10 Hours 14.12 Feet / Hour

Total Drill Time = Average Penetration Rate =

Total Redrill Time = Average Penetration Rate =

5.99 Hours 34.89 Feet / Hour

Verticality Information

At Full Depth = S-ARC North = S-ARC South =

14.8" South X 9.25" West No Overtap at Full Depth, Overtap Achieved with Conforming Pile. 38.51"

Quality Coring: None.

Comments:

On 1/31/94 12 cu.yds. of grout was placed in Pile #506 before grout pump broke down

Primaryary Pile #507

Area "B"

	110	PENNALL EVENAVA	MOIT						CUT-OFF V	JT-OFF WALL CONSTRUCTION	TRUCTION			
	2	THE MALL EACHED	100								1000	0000	Theoretical	
	Fortiment		Drill Footage		Pure Drill Time		Penetration Rate	te			NOT-Spec.	2000	יומסומרומו	
Drilling	Rig	Excavation	Drill	=	O .	Redrill	Drill	Redrill	Concrete	Grout	Concrete	Concrete	CLIVD	Cverbreak
Date	*	Method	E	Œ	(HRS)	(HPS)	(FI / HH)	HH I-	nan	20.10.	20.00	12		
04/06/94	2	DHD130A	107		3.75		28.53		04/06/94	8	-		25.0	44.1%
10,00,00	•	X - 1X	185	107	2.92	2.58	26.71	41.47	06/21/94			47	43.2	8.8%
#6/p2/pa	•	VE -24	3											

Total Drill Time = Average Penetration Rate =

6.67 Hours 27.74 Feet / Hour

Total Redrill Time = Average Penetration Rate =

2.58 Hours 41.47 Feet / Hour

Verticality Information

5.0" South X 6.75" West 38.51" At Full Depth =

S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile #508 Area "B"

	TIV	SEE WALL EXCAVA	NOIT					ĺ	CUT-OFF V	WALL CONSTRU	TRUCTION			
		JET VACEL LAURY									Alon Choc	Spec	Theoretical	
	Fourinner	-	Drill Footage		Pure Drill Time		Penetration Hate	lle l			NOI-Space	3000	The Country	
			===	Dodrill	1111	Redrill	lin'C	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
Dulling	Đ.	Excavalion	= (100	ADD.		EH / HB	Pate	(CL VD)	(CC:YD)	(CU:YD)	(CU.YD.)	
Date	#	Method	(1-1)	Ē	CHU	2	611.7	,,,,,						
02/40/04	°	DHD130A	æ		292		22.60		03/18/94	45			15.4	192.0%
6 3			}											
	,	40070110	404	8	7.25	1 68	16.41	30.20	05/00/94			84	43.2	11.1%
04/30/94	_	AN LINE	3	3		3								
						-								

Total Drill Time =

10.17 Hours 18.19 Feet / Hour

Average Penetration Rate =

Total Redrill Time = Average Penetration Rate =

1.68 Hours 39.29 Feet / Hour

Verticality Information

8.25" South X 5.25" West

21.73° 27.80° At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile #509 Area "B"

	CITT	DEF WALL EXCAVA	NOIL						CUT-OFF V	VALL CONS	TRUCTION			
	100	WALL LACAN	D-11 Contract		Sura Drill Tima		Penetration Bate	q			Non-Spec.	Spec.	Theoretical	
					OLD DIES									A section of
C. Hillian	2.0	Eventation	Deil.	Redrill	Drill	Redrill		Redrill	Concrete	Grout	Concrete	Concrete	VONUMB	CVerbreak
5	Ď,	To the state of	Ę		ADD	HDC	FT / HR	(FT / HR	Date	(CU.YD.)	(CC.YD.)	CU.YD.)	(CU.VD.)	
Date	*	Memod			2	2	, , , ,							
	(*0070110	40		187		23 16		04/13/94	\$			19.8	101.9%
04/12/94	2	CHUSTON	8		ò		2							
												•	43.5	11 10%
07/01/04	_	XI 24	185	8	3.58	217	27.93	39.17	\$600/00			₽	70.5	2
20/10								_						

Total Drill Time = Average Penetration Rate =

2.17 Hours 39.17 Feet / Hour

7.25 Hours 25.52 Feet / Hour

Total Redrill Time = Average Penetration Rate =

6.5" South X 1.5" East 27.80" 19.40" S-ARC North = S-ARC South = At Full Depth == Verticality Information

Quality Coring: None.

Secondary Pile #510 Area "B"

	CITTO	JEE WALL EXCAVE	ATION)	CUT-OFF V	VALL CONS	TRUCTION			
	For in men	-	Drill Footage		Pure Drill Time		Penetration Rate	9.			Non-Spec.	Spec.	Theoretical	
Drilling	Rig	Excavation	Drill	Redrill	Orill	Redrill	Drill		Concrete	Grout	Concrete	Concrete	Volume	Overbreak
Date	*	Method	Œ	Œ	(HRS)	(HRS)	(FT/HR)	(FI / HR)	Cate	(CU.VD.)	(CU.YU.)	(CO.YD.)	(CO.TD.)	
03/21/94	8	DHD130A	89		1.50		43.33		03/22/94	K			15.2	64.7%
10/10/10	•	5	rg.	A.S.	4 17	108	28.78	60.19	05/05/94			5	43.2	18.1%
#s/cn/cn	-	VL - 64	3	3										

Total Drill Time = Average Penetration Rate =

5.67 Hours 32.63 Feet / Hour

1.08 Hours 60.19 Feet / Hour

Total Redrill Time = Average Penetration Rate =

Verticality Information

11" South X 1.0" West At Full Depth =

S-ARC North = S-ARC South =

19.40"

Quality Coring: None.

Comments:

Primary Pile #511 Area "B"

	CUT-0	FF WALL EXCAVA	VIION						CUT-OFF V	VALL CONS	TRUCTION			
	Fourinmen		Drill Footage		Pure Drill Time		Penetration Rate				Non-Spec.	Spec.	Theoretical	
Drilling	Rid	Excavation	Dial.	Redrill	Drill	Redrill	Drill	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
Date	*	Method	Œ	Œ	(HRS)	(HRS)	(FT/HR)	(FT/HR)	Date	(CU:YD:)	(CU.YD.)	(CU.YD.)	(CU.YD.)	
04/14/94	N	DHD130A	109		4.25		25.65		04/15/94	88			25.5	10.0%
												2	700	000
06/28/94	-	XL-24	185	<u>8</u>	2.67	2.91	28.46	37.46	06/23/94			†	40.4	

Total Drill Time = Average Penetration Rate =

6.92 Hours 26.73 Feet / Hour

Total Redrill Time = Average Penetration Rate =

2.91 Hours 37.46 Feet / Hour

Verticality Information

2.0" North X 0.5" West At Full Depth =

42.21" 36.77" S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile #512 Area "B"

	CIT-O	FF WALL EXCAVA	VIION						CUT-OFF V	VALL CONS	TRUCTION			
	Forting	14	Drill Footage		Pure Drill Time		Penetration Rate	te			Non-Spec.	Spec.	Theoretical	
Drilling	, iii	Evcavation	Drill	Redrill	Drill	Redrill	Dij	Redrill	Concrete		Concrete	Concrete	Volume	Overbreak
	*	Mathod	Ę	E	(HRS)	(HRS)	(FT / HR)	(FT / HR)	Date	(CU.YD.)	(CU.YD.)	(CU.YD.)	(CU.YD.)	
Dale	+	POLITICAL IN COLUMN TO A COLUM												
03/24/94	8	DHD130A	8		1.67		37.13		03/24/94	8		22	14.5	53.3%
					1	,		8	10144100			94	43.0	13.494
05/11/94	-	XL-24	185	83	90°C	9.1	24.17	8.79	\$ (2)			?) F	27.5

Total Drill Time = Average Penetration Rate ==

6.76 Hours 27.37 Feet / Hour

Total Redrill Time = Average Penetration Rate =

1.00 Hours 62.00 Feet / Hour

Verticality Information

11" North X 5.0" East 36.77" At Full Depth =

7.77 S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile #513 Area "B"

8.8% 88.6% Overbreak 43.2 19.6 Theoretical Volume (CU,YD.) 47 Spec. Concrete (CU.YD.) CUT-OFF WALL CONSTRUCTION

Concrete Grout Concrete

Date (CU.YD.) 37 06/02/94 04/08/94 25.23 Redrill (FT / HR) enetration Rat 12.12 18.96 (FT/HB) Ē 3.33 Redrill (HRS) Pure Drill Time Drill (HRS) 4.43 8.33 察 Redrill (F) 88 8 置匠 CUT-OFF WALL EXCAVATION Excavation DHD130A **DHD130A** Method quipment Rig N 06/06/94 04/08/94 Driffing Date

Total Drill Time =

12.76 Hours 14.50 Feet / Hour

Average Penetration Rate =

Total Redrill Time = Average Penetration Rate =

3.33 Hours 25.23 Feet / Hour

Verticality Information

2,75" North X 2,25" West At Full Depth = S-ARC North = S-ARC South =

7.77"

24.94"

Quality Coring: None.

Secondary Pile #514 Area "B"

	CUT-0	-OFF WALL EXCAV	ATION						CUT-OFF V	VALL CONS	TRUCTION			
	Farinment		Drill Footage		Pure Drill Time		Penetration Rate				Non-Spec.	Spec.	Theoretical	
Drilling	Rig.	ŭ,	<u> </u>	Redrill	Orill	Redrill	Drill FT / HR)	Redrill (FT / HR)	Concrete	Grout (CU YD.)	Concrete (CU.YD.)	Concrete (CU.YD.)	Volume (CU.YD.)	Overbreak
Date	#	Metrica	(1)		2									
03/23/94	-	DHD130A	8		1.08		58.33		03/23/94	8			14.7	35.9%
05/13/94	2	DHD130A	98	æ	1.67	2.50	19.16	25.20	05/16/94		22		22.2	21.7%
07/20/94	0	DHD130A	185	95	8.10	6.83	11.11	13.91	07/21/94			47	43.2	

10.85 Hours 17.05 Feet / Hour

Total Drill Time = Average Penetration Rate =

Total Redrill Time = Average Penetration Rate =

9.33 Hours 16.93 Feet / Hour

Verticality Information

2.0" North X 2.5" East 24.94"

13.84" At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile #515

Area "B"

	CUT-C	JEF WALL EXCAVA	NOIL						CUT-OFF WAL	VALL CONSTR	TRUCTION			
	Fauipmen	1	Drill Footage		Pure Drill Time		Penetration Rate	fe.			Non-Spec.	Spec.	Theoretical	
Drilling	Rig	Excavation	Drill	Redrill		Redrill	Orill	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
Date	*	Method	Œ	(FT)	(HRS)	(HRS)	(FT/HR)	(FT / HR)	Date	(CU.YD.)	(CU:YD:)	(CU.YD.)	(CU.YD.)	
04/22/94	-	DHD130A	26		3.50		26.86		04/22/94	8	3.6		22.0	92.5%
				i					10,200			9	43.0	44 10%
05/26/94	_	XL-24	185	96	3.67	1.83	24.80	75.16	#6/12/cn			₽	43.5	

Total Drill Time = Average Penetration Rate =

7.17 Hours 25.80 Feet / Hour

Total Redrill Time = Average Penetration Rate =

1.83 Hours 51.37 Feet / Hour

Verticality Information

3.0" South X 9.0" West At Full Depth = S-ARC North = S-ARC South =

13.84"

Quality Coring: None.

Secondary Pile #516 Area "B"

	O. IT.	EE WALL EXCAVA	NOIL						CUT-OFF V	VALL CONS	TRUCTION			
	Comming		Drill Footage		Pure Drill Time		Penetration Rate	te			Non-Spec.	Spec.	Theoretical	
Drilling	Rig	Excavation	Drill	Redrill		Redrill	Drill	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
Date	*	Method	(FI)	Œ	(HRS)	(HRS)	(FI / HH)	(FI / HR)	Date	(CO.YD.)	(CO.TD.)	100.100	20.10.)	
03/19/94	8	DHD130A	8		2.17		29.95		03/19/94	88			15.2	486.3%
05/16/94	2	DHD130A	110	65	250	1.83	18.00	35.52	05/17/94		33		25.7	28.5%
06/22/94	8	XL-24	185	110	4.46	1.04	16.82	105.77	06/23/94			47	43.2	8.8%

Total Drill Time = Average Penetration Rate =

9.13 Hours 20.26 Feet / Hour

2.87 Hours 60.98 Feet / Hour

Total Redrill Time = Average Penetration Rate ==

Verticality Information

0" North / South X 2.5" West 29.51" 30.32"

At Full Depth = S-ARC North = S-ARC South =

Comments:

Primary Pile #517

Area "B"

		ALL ACTOR OF THE PARTY OF THE P	1401						CITTOFFW	VALL CONSTRUC	TRUCTION			
		-OFF WALL EXCAVA	201							1				
	- cuinnent	1	Drill Footage		Pure Drill Time		Penetration Rate	e			Non-Spec.	Spec.	neoretical	
- M. C	1		1100	Dortrill	Della	Redrill		-	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
guillo G	Ď,	Excavation	56		HBS	HRS	(FT / HR)	FT/HB	Date	(CU.YD.)	(CU.YD.)	(CU.YD.)	(CU.YD.)	
Dare	*	Medica		I	2			ı						
04/19/94	_	DHD130A	. 021		8.08		14.85		04/19/94	48			28.0	71.3%
05/24/94	-	XL-24	185	120	2.33	2.92	27.90	41.10	05/25/94			47	43.2	8.8%
1														

Total Drill Time = Average Penetration Rate =

10.41 Hours 17.77 Feet / Hour

2.92 Hours 41.10 Feet / Hour Total Redrill Time = Average Penetration Rate =

Verticality Information

4.0" North X 5.0" East 30.32" 17.64" At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile #518 Area "B"

	CIT-O	FF WALL FXCAVA	TION						CUT-OFF WALL (VALL CONS	TRUCTION			
	Fallinmen		Drill Footage		Oure Drill Time		Penetration Rate	le le	-		Non-Spec.	Spec.	Theoretical	
Drilling	Rig	Excavation	Drill	Redrill	Drill	Redrill	- E	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
Date	*	Method	E		(HRS)	(HRS)	(FT / HR)	(FI / HK)	Date	(CO.YD.)	(CO.YD.)	(CO.TD.)	(20.10.)	
12/13/93	•	DHD130A	æ		7.50		8.40		12/13/93		45.5		14.7	209.3%
03/22/94	-	DHD130A	æ	8	0.02	3.23	100.00	19.50	03/22/94	83			15.2	64.7%
05/13/94	8	DHD130A	120	æ	3.13	1.28	17.57	50.78	05/13/94		48		28.0	71.3%
08/02/94	*	DHD130A	185	52	4.45	7.83	14.71	15.33	08/03/94			47	43.2	8.8%

Total Drill Time = Average Penetration Rate =

15.07 Hours 12.28 Feet / Hour

Total Redrill Time = Average Penetration Rate =

12.34 Hours 20.10 Feet / Hour

Verticality Information

1.5" South X 5.5" East At Full Depth =

17.64" 19.54" S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile #519 Area "B"

	CITT	DEF WALL EXCAVA	NOIT						CUT-OFF V	VALL CONS	TRUCTION			
	Fallinment		Drill Footage		Pure Drill Time		Penetration Rate	ite			Non-Spec.	Spec.	Theoretical	:
Drilling	Rid	Excavation	Drill	Redrill	Drill	Redrill	Drill	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
Date	*	Method	Œ	Œ	(HRS)	(HRS)	(FT/HR)	(FI/HR) I	Date	(CU.YD.)	(CU.YU.)	(CU.YU.)	CU.TU.)	
03/31/94	-	DHD130A	117		5.83		20.02		03/31/94	84			27.3	75.7%
					1	1			10,000			S	43.0	15.724
06/02/94	-	XL-24	185	117	2.70	289	25.13	40.48	00/03/34			3	7.04	
	_													

Average Penetration Rate = Total Drill Time =

8.53 Hours 21.69 Feet / Hour

Total Redrill Time = Average Penetration Rate =

2.89 Hours 40.48 Feet / Hour

Verticality Information

6.0" South X 7.0" East

19.54" 34.43" At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 520 Area "B"

	CHT-0	-OFF WALL EXCAV	ATION						CUT-OFF W	VALL CONS	TRUCTION			
	Forninment		Drill Footage		² ure Drill Time		Penetration Rate				Non-Spec.	Spec.	Theoretical	
Drilling	Rig	<u>a</u>	III (Redrill		Redrill	Drill Out / LD	Redrill	Concrete	Grout	Concrete	Concrete	Volume (CU VD)	Overbreak
Date	#	Method	(FI)	(L)	(CHINO)	GHL	(LI / LI)	(uu/iu)	Dale	100.10.1	100.100	10000		
10/19/93	-	XL-24	8		0.58		103.45		10/19/93		83		14.0	107.0%
11/06/93	-	DHD130A	75	8	0.84	5.25	17.86	11.43	11/06/93		88		17.5	82.7%
03/24/94	-	DHD130A	78	75	0.03	3.64	100.00	20.60	03/24/94	æ	8		18.2	48.2%
05/17/94	8	DHD130A	115	78	2.51	2.33	14.74	33.48	05/18/94		31	7	26.9	15.4%
07/22/94	N	DHD130A	185	115	3.50	5.00	20.00	23.00	07/22/94			47	43.2	8.8%

Total Drill Time = Average Penetration Rate =

7.46 Hours 24.80 Feet / Hour

Total Redrill Time = Average Penetration Rate =

16.22 Hours 20.22 Feet / Hour

Verticality Information

1" North X 13" East

19.54 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 521

Area "B"

Oate #	# # Big	Excavation	ATION Drill Footage Drill (FT)	Redrill (FT)	Pure Drill Time Drill (HRS)	Redrill (HRS)	Penetration Rate Drill (FT / HR)	Redrill (FT / HR)	Concrete Date	Concrete Grout CONSTRUC Date (CU.YD.) (C	Non-Spec. Concrete (CU.YD.)	Spec. Concrete (CU.YD.)	Theoretical Volume (CU.YD.)	Overbreak 30.4%
06/17/94	× +	XL-24	185	87	3.84	1.58		55.06	06/17/94			47	43.2	8.8%

Total Drill Time = Average Penetration Rate =

8.25 Hours 22.42 Feet / Hour

Total Redrill Time = Average Penetration Rate =

1.58 Hours 55.06 Feet / Hour

Verticality Information

4" North X 1.5" West

34.43 15.43 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 522

Area "B"

	JOI TO	F WALL FYCAVE	NOITE						CUT-OFF WALL	VALL CONS	HUCTION			
		1	Drill Footage		ure Drill Time		Penetration Rate	te			Non-Spec.	Spec.	Theoretical	-
Drilling	Rig	Excavation	III-O	Redrill		Redrill	Drill (FT / HB)	Redrill (FT / HR)	Concrete	Grout (CU.YD.)	Concrete (CU.YD.)	Concrete (CU.YD.)	(CU.YD.)	Cverbreak
Date	#	Method	(FI)	L L	2	(211)	7							
09/17/94	-	DHD130A	28		1.17	b	54.70		10/13/93		83		14.9	53.9%
04/02/94	-	DHD130A	8	æ		5.17		12.19	04/02/94	83	2		14.7	110.7%
05/31/94		DHD130A	115	49	2.00	1.08	25.50	59.26	06/01/94		31		26.9	15.4%
08/05/94	. 2	DHD130A	185	115	5.97	6.08	11.73	18.91	08/08/94			47	43.2	8.8%

9.14 Hours 20.24 Feet / Hour

Total Drill Time = Average Penetration Rate =

12.33 Hours 19.63 Feet / Hour

Total Redrill Time = Average Penetration Rate =

Verticality Information

2.5 South X 0' E/W 24.53 31.85

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments: Connected with pile 552

Primary Pile # 523

Area "B"

-	1	4// V U V U V U V V V V V V V V V V V V V	I VOI						CUT-OFF V	VALL CONS	CONSTRUCTION			
	2-155	-OFF WALL EACAVE	Sign		- 8						Non-Spec	Snec	Theoretical	
	Farinmen	14	Drill Footage		Pure Drill Time		Penetration Hate	_			100	1000	1,4-6	Acompany.
	2		-	Dodrill	110	Redrill	Drill	Redrill	Concrete	Grout	Concrete	Concrete	VOICINE	CVEDICER
Dulling	ğ	Excavalion	5 (Ę		(JODG)	MOH / Lu/	(FT / HR)	Pate	(CU.YD.)	(CC.YD.)	(CU.YD.)	(CU:YD:)	
Date	*	Method			245	2	1111							
							1,00		10/13/04	2	-		56.9	30.3%
04/13/94	2	DHD130A	115		6.33		18.17		10 15	5	•			
						0		200	06/44/04			47	43.2	8.8%
06/14/94	-	XL-24	185	115	2.83	2.30	24.73		1 13					

Total Drill Time = Average Penetration Rate =

9.16 Hours 20.20 Feet / Hour

Total Redrill Time = Average Penetration Rate =

2.50 Hours 46.00 Feet / Hour

Verticality Information

4" North X 10" east 15.43 35.59

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 524 Area "B"

	O-THO	FF WALL EXCAVA	ATION						CUT-OFF V	VALL CONS	TRUCTION			
	Follower	1	Drill Footage		Sure Drill Time		Penetration Rate	te			Non-Spec.	Spec.	Theoretical	
Driffing	S S S S S S S S S S S S S S S S S S S	Excavation	Diel	Redrill	Duill	Redrill	IIIO	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
S to	? *	Method	Œ	Œ	(HRS)	HRS	(FT/HR)	(FT / HR)	Date	(CU.YD.)	(CU.YD.)	(CC.XD.)	(CU.YD.)	
Daio	#	2000												
12/09/94	2	DHD130A	98		3.50		17.14		12/09/93		8		14.0	142.7%
				8	1	000	10.46	5 5	05/05/04			48	43.2	11.1%
05/05/94		DHD130A	8	8	0.77	20.2	9		to imim			2		

10.27 Hours 18.01 Feet / Hour

Total Drill Time = Average Penetration Rate =

2.39 Hours 25.10 Feet / Hour

Total Redrill Time = Average Penetration Rate =

Verticality Information

11" North X 10" east 31.85 17.24

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 525 Area "B"

CUT-OFF WALL CONSTRUCTION	Non-Spec. Spec. Theoretical	Concrete	Date (CU.YD.) (CU.YD.) (CU.YD.)	03/29/94 127 460.7%	461.90 06/08/94 43.2 8.8%
	_	_			47
STRUCTION	Non-Spec.	Concrete	(CU:YD:)		
WALL CON	_				*
CUT-OFF		Concrete	Date	03/29/94	
		Redrill	(FT/HR)	_	
	Penetration Rate	E C	EH/HB)	19.40	17.19
	6	Redrill	(HRS)		0.21
	Pure Drill Time	Drill	(HRS)	2.00	5.12
		Redrill	Œ		97
ATION	Drill Footage	Dig.	Œ	76	185
IFF WALL EXCAV	-	Excavation	Method	DHD130A	XL-24
CUT-0	Equipmen	Ria	*	-	-
		Drilling	Date	03/28/94	06/28/94

Total Drill Time ==

10.12 Hours 18.28 Feet / Hour

Average Penetration Rate = Total Redrill Time = Average Penetration Rate =

0.21 Hours 461.90 Feet / Hour

Verticality Information

7" North X 0" E/W

35.59 21.81 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 526 Area "B"

П				9	-	,	
	1	Cverbreak		294.2%	15 70		
	Theoretical	Volume	CO. LO.)	14.7	43.0	304	
	Spec.	Concrete	(70.10.)	±	S	3	
RUCTION	Non-Spec.	Concrete	(CU.YU.)				
VALL CONS		Grout	(CU.VD.)	88			
CUT-OFF V		Concrete	Date	03/15/94		04/21/94	
	9	Redrill	(FI / HR)			21.00	
	Penetration Rate	E C	(FT/HR)	34.43		13.82	
		Redrill	(HRS)			3.00	
	Pure Drill Time	Dull	(HRS)	1.83		8.83	
		_	Œ			8	
NOIL	Drill Footage	Orill	Œ	8	3	185	
F WALL EXCAVA		Excavation	Method	DHD130A		DHD130A	
117	Trampin C	Rid	*	C	V	-	-
		Drilling	Date	10177/00	* (S)	04/21/94	

Total Drill Time =

10.66 Hours 17.35 Feet / Hour

Average Penetration Rate =

Total Redrill Time = Average Penetration Rate ==

3.00 Hours 21.00 Feet / Hour

Verticality Information

3.77 North X 0" E/W

At Full Depth = S-ARC North = S-ARC South =

No Overlap at Full Depth, Overlap Achieved with Conforming Pile.

Quality Coring: None.

Comments:

Primary Pile # 527

Area "B"

	1	CE WALL EXCAVA	NOIL						CUT-OFF W	ALL CONS	TRUCTION			
		+ WALL LACAN	Drill Footage		Pure Drill Time		Penetration Rate	9			Non-Spec.	Spec.	Theoretical -	
Drilling	Rig	Excavation	Drill	Redrill	1- :	Redrill	Drill	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
Date	*	Method	E	(FI)	(HRS)	(HHS)	(FI / HR)	(FI/MK)	Cale	יים ייס	100.00	, A.	1001	
04/06/04	-	DHD130A	8		3.17		26.18		04/06/94	9			19.4	106.4%
in localiza				(42.4	07/08/04			48	43.2	11.1%
07/07/94	2	DHD130A	28	33	9.10	4.0/	1.14		te loo/ to					

Total Drill Time = Average Penetration Rate =

12.33 Hours 15.00 Feet / Hour

4.67 Hours 17.77 Feet / Hour

Verticality Information

Total Redrill Time = Average Penetration Rate =

5.5' South X 12.75' West At Full Depth =

21.81 S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 528 Area "B"

	1	EE WALL EYCAV	MOITA						CUT-OFF V	VALL CONS	TRUCTION			
		TE WALL LAUN.	Drill Footage		Pure Drill Time		Penetration Rate	te e			Non-Spec.	Spec.	Theoretical	
Crilling	Dio Dio	Evesuation	Drill	Redrill	E C	Redrill	Drill	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
	₽*	Method	Œ	Ē	(HRS)	(HRS)	(FT / HR)	(FT / HR)	Date	(CU.YD.)	(CU.YD.)	(CU.YD.)	(CU.YD.)	
Dailo	ŧ	200												
03/19/94	0	DHD130A	88		1.58		41.14		03/19/94	42			15.2	176.7%
	ı											9	43.9	11 100
05/03/94	-	DHD130A	185	85	39.6	2.08	12.47	31.25	05/03/84			7	4.54	

11.20 Hours 16.52 Feet / Hour

Total Drill Time = Average Penetration Rate =

Total Redrill Time = Average Penetration Rate =

2.08 Hours 31.25 Feet / Hour

Verticality Information

4.75 South X 4" West

At Full Depth = S-ARC North = S-ARC South =

32.92

Quality Coring: None.

Comments:

Primary Pile # 529

Area "B"

		CENTALL EVOAVA	ATION						CUT-OFF V	VALL CONS	TRUCTION			
	2 - 100	JET WALL LAUAV	1010				Denotembine Day	2			Non-Spec	Spec.	Theoretical	
	Edutomen	يد	Unil Footage		The Drill Inne		reficilation hate	- [Vahimo	Josephone
Drilling	ä	Excavation	Drift	Redrill		Redrill		Redrill	Concrete	Grout	Concrete	Concrete	AUDIO	CAGIOGEN
		Method	Ę	Œ	(HRS)	(HRS)	(FT / HR)	(FT/HR)	Date	(CU.YD.)	(CU.VD.)	(CO,YD.)	(CU.YU.)	
Cale	*	Minoli												
04/11/94	0	DHD130A	18		3.83		21.15		04/11/94	왕			18.9	69.2%
													•	č
06/20/94	_	XL-24	185	18	3.58	2.08	29.65	38.94	06/21/94			47	43.2	6.676

Total Drill Time = Average Penetration Rate =

7.41 Hours 24.97 Feet / Hour

Total Redrill Time = Average Penetration Rate =

2.08 Hours 38.94 Feet / Hour

Verticality Information

ON/S X 3" West 25.55 35.33

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 530 Area "B"

	1		I WOLL						CUT-OFF W	VALL CONS	TRUCTION			
	0-100	FF WALL EXCAV	NOIL								Mon Coon	Snor	Theoretical	
			I Drill Footsca		Pure Drill Time		Penetration Hate				NOI Spec.		1	A THE PERSON AND ADDRESS OF THE PERSON ADDRESS OF THE PERSON AND ADDRESS OF THE PERSON AND ADDRESS OF THE PERSON AND ADDRESS OF THE PERSON AND ADDRESS OF THE PERSON ADDRESS OF THE PERSON AND ADDRESS OF THE PERSON AND ADDRESS OF THE PERSON ADDRESS OF THE PERSON ADDRESS OF THE PERSON AND ADDRESS OF THE PERSON AND ADDRESS OF THE PERSON AND ADDRESS OF THE PE
	Edulphia		OR LINE	T		17.7.1	7	Dodrill	Concrete	1	Concrete	Concrete	Volume	Cverbreak
Crilling	.50	Excavation	Duit	Redrill		Hedri				3	100	9	100	
5	2	1000	Ę	Ę	(HBC)	E SS	FT/HB		Date	(CU:VD:)	(CU.YU.)	(20,10.)	(.01.00)	
Date	*	Method			2									
									10,700	9			14.9	167.6%
03/21/94	0	DHD130A	8		1.08		20.58		#5/12/cm	\$			2	
5/17/00												Ş	007	42.40
	,	3	105	2	4 68	100	25.85	97.00	05/10/94			2	49.2	2,472
02/03/94	_	AL-24	3	5	3									

Total Drill Time =

5.76 Hours 32.12 Feet / Hour

Average Penetration Rate =

Total Redrill Time = Average Penetration Rate =

1.00 Hours 64.00 Feet / Hour

Verticality Information

8.25" North X 4" East 2.92

At Full Depth = S-ARC North = S-ARC South =

No Overlap at Full Depth, Overlap Achieved with Conforming Pile

Quality Coring: None.

Comments:

Primary Pile # 531

Area "B"

									CLIT-OFF V	VALL CONS	CONSTRUCTION			
		DEF WALL EXCAVE	CZ										Thousaning	
			Drill Footsco		Pure Drill Time		Penetration Rate	te			Non-spec.	Spec.	Hedelical	A
		11	2000		ı,	ľ	-	III-POO	Concrato		Concrete	Concrete	Volume	CVerbreak
Drilling	Big	Excavation		Redrill		Hedrill			2000	3 3			(CK IO)	
	7 *	Method	٤	Œ	(HRS)	(HRS)	FT/HR)	(FI / HH)	Date	- 13	20.00	100	20.10	
Date	*	NICO IN	, , ,											
		AUD130A	S.		382		21.68		04/08/94	90	2		19.8	413.9%
5/09/50	V	Seigno	3											
			407	100	8	4.67	14.45	18.20	06/02/94			47	43.2	8.8%
06/02/94	-	DHD130A	8	3		ò					_			

Total Drill Time = Average Penetration Rate =

10.84 Hours 17.07 Feet / Hour

4.67 Hours 18.20 Feet / Hour

Verticality Information

Total Redrill Time = Average Penetration Rate =

2.5" South X 4" West 5.33 3.94 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 532 Area "B"

	CITTO	FE WALL EXCAVA	VIION						CUT-OFF V	VALL CONS	TRUCTION			
	Formomen		Drill Footage		Pure Drill Time		Penetration Rate				Non-Spec.	Spec.	Theoretical	
Driffing	Big	Excavation	Drill	Redrill	Drift	Redrill	Drill	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
Date	*	Method	Œ	(FI)	(HRS)	(HRS)	(FT/HR)	(FT/HR)	Date	(CU.YD.)	(CU.YU.)	(CO.YD.)	(CU.YU.)	
03/23/94	-	DHD130A	28		1.17		54.70		03/23/94	8			14.9	33.8%
05/16/94	7	DHD130A	88	25	1.35	3.06	15.56	20.92	05/16/94		24		19.8	20.9%
07/01/94		XL-24	185	88	2.75	2.67	36.36	31.84	07/05/94			48	43.2	11.1%

5.27 Hours 22.96 Feet / Hour

Total Drill Time = Average Penetration Rate =

5.73 Hours 26.00 Feet / Hour

Total Redrill Time = Average Penetration Rate =

3.5" North X 8" West

At Full Depth =

Verticality Information

28.15 S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 533 Area "B"

	CIT-O	FF WALL FXCAVA	VIION						CUT-OFF \	WALL CONS	TRUCTION			
	Follibrian	+	Drill Footage		Pure Drill Time		Penetration Rate	ite			Non-Spec.	Spec.	Theoretical	
Drilling	Rid	Excavation	Duill	Redrill	E C	Redrill	Drill	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
Date	*	Method	(F)	(FI)	(HRS)	(HRS)	(FT / HR)	(FT/HR)	Date	(CO.YD.)	(CU.YD.)	(CO.YD.)	(CO.YD.)	
10,41,00	•	PUDASOA	G		3.75		22 13		04/14/94	12	-		19.4	34.1%
4/41/40	٧	ANCIOU .	3		5			-						
05/27/94	_	XL-24	185	88	4.08	1.67	25.00	49.70	05/27/94			84	43.2	11.1%

Total Drill Time = Average Penetration Rate ==

7.83 Hours 13.03 Feet / Hour

Total Redrill Time = Average Penetration Rate =

1.67 Hours 49.70 Feet / Hour

Verticality Information

5" North X 3.25" West 33.94 At Full Depth = S-ARC North = S-ARC South =

28.82

Quality Coring: None.

Secondary Pile # 534 Area "B"

		11000	I CIF						CUT-OFF WALL	VALL CONS	2000			
	0-100	HE WALL EXCAVE	NOIS								Non-Spec	Spec	Theoretical	
			Drill Ecotada		Pure Drill Time		Penetration Hate	ite			1000	-	Votimo	Appropried C
			2000			-	===	Dodrill	Concrete	T D	Concrete	Colorere	ACIDIO	Vendidan
Drilling	Big	Excavation	E	Redrill		LIBOH COLD		HE HE	Date	(CU.YD.)	(CU.YD.)	(CU.YD.)	(CU.YD.)	
Date	*	Method	(E)	Œ	QUE.	CUU	61117							
					-		10.67		03/20/04	44	2		14.9	207.8%
03/29/94	_	DHD130A	28		2.50		45.01		to lealed	ţ				
									06/47/04		27.5		22.2	24.0%
05/16/94		DHD130A	88	25	1.70	2.80	16.24	87			ì			
						1			10/04/20			47	43.2	8.8%
07/19/94	2	DHD130A	185	98	3.17	20.00	8.8	17.71						
200														

6.37 Hours 19.00 Feet / Hour

Total Drill Time = Average Penetration Rate =

8.30 Hours 19.16 Feet / Hour

Total Redrill Time = Average Penetration Rate =

Verticality Information

6.5" North X 3.5" West 28.15 24.21

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 535

Area "B"

									CITTOFFV	VALL CONS	TRUCTION			
	CIT	PEF WALL EXCAVA	NOIL								30.00	Coros	Theoretical	
	2		Drill Ecotogo		Pure Drill Time		Penetration Ra	Rate			Non-spec.	obec.	Metimo	James
		1		1	-		=	Dodail	Concrete		Concrete	Concrete	AUDIOA	CVEDIOEN
Drilling	ë	Excavation	D'il	Redrill		Hedri	5						(CU,YD.)	
2	9	Mathod	Ę	Œ	EBS	HRS	FT/HR)	FI/HH)	Care	20.10.	(20, 10,	1000		
Date	*	Medica												
									10/04/10	7.6	œ		25.2	38.8%
10/10/04	-	DHD130A	108		4.33		24.94		\$ 15	ì	,			
												47	687	8.8%
05/04/04	-	XI -24	185	108	3.42	2.25	22.51	48.00	05/25/94			ř	1	
S I S I S	_	į												

Average Penetration Rate = Total Drill Time =

7.75 Hours 9.94 Feet / Hour

2.25 Hours 48.00 Feet / Hour

Total Redrill Time = Average Penetration Rate =

Verticality Information

5" North X 7" West 28.82 12.12 At Full Depth =

S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 536 Area "B"

	110	CENANT EVENAVA	NOIT						CUT-OFF V	VALL CONS	TRUCTION			
		IFF WALL EACHY	NO.								Non-Char	Spec	Theoretical	
	Equipment	*	Drill Footage		Pure Drill Time		Penetration Hate				200		Vohimo	Anahana
Drilling	Rich	Excavation	IIIO	Redrill	Drill	Redrill	E O	Redrill	Concrete	Grout	Concrete	Concrete	CIVIO	Overbied
Date	?#	Method	Œ	Œ	(HRS)	(HRS)	(FT / HR)	(FI / HH)	Date	CO.TO.)	20.10.	100.100		
Caso									10,00,00	5			14.5	107.2%
03/30/94	_	DHD130A	88		1.58		39.24		03/30/94	3				
						0	8	20 00	05/13/04		8		23.4	37.0%
05/11/94	N	DHD130A	8	8	1.87	777	ZO.0Z	3						
				-	9	1	90.00	44.30	07/04/04			47	43.2	8.8%
07/20/94	8	DHD130A	185	9	90.5	8.	90.9	4.63	20171					

Average Penetration Rate = Total Drill Time =

12.53 Hours 9.82 Feet / Hour

9.21 Hours 17.59 Feet / Hour Total Redrill Time = Average Penetration Rate =

1.75" South X 1.25" East At Full Depth = Verticality Information

24.21 S-ARC North = S-ARC South =

Quality Coring: None.

Comments: Contractor reported that an additional 35 cy of grout went into this hole, this grout however was used top to off several piles and is not included above.

Primary Pile # 537

Area "B"

		Overbreak			68.6%	8.8%	
	Theoretical	_	(CU,YD.)		22.0	43.2	
	Spec.	Concrato	(CU.YD.)			47	
TRUCTION	Non-Spec	Constato	(CIXI)		7		
WALL CONS		-		70.70	99		
CUT-OFF W			Concrete	Alle	04/28/94	06/03/94	
		- }	Hedrill	(FI / HR)		41.78	
		Penetration Hate		(FI / HH)	21.71	30.33	
			Redrill	(HHS)		225	
		Pure Unil Ime	O-III	(HRS)	4.33	3.00	
			Redrill	E		8	
	NON	Drill Footage	Drill	(E)	8	185	
	FF WALL EXCAVA		Excavation	Method	DHD130A	XI -24	
!	COT-O	Fouribment	Rig	*	-		
3			Drilling	Date	A9/7C/A0	06/00/04	20/00

7.33 Hours 12.41 Feet / Hour Total Drill Time = Average Penetration Rate =

2.25 Hours 41.78 Feet / Hour Total Redrill Time = Average Penetration Rate =

1" South X 0" E/W At Full Depth = Verticality Information

12.12 30.80 S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 538 Area "B"

•		- 1							CUT-OFF V	WALL CONS	CONSTRUCTION			
	C-LIC	-OFF WALL EXCAVA	ZOS								3000	Coco	Theoretical	
			Drill England		Pure Drill Time		Penetration Rate	te e			Non-spec.	abec.	Handing	1
			Offil County	٦	: :		-	II:PT-C	Constants	1	Concrete	Concrete	Volume	
Drilling	Rig	Excavation		Redrill		Hedrill			Date	CI AD	(CU.YD.)	(CU.YD.)	(CU.YD.)	
Date	*	Method	(FI)	(F)	(AH2)	(SUL)	(A) (A)		2					
	,	40070170	8		1 75		35.43		03/28/94	8	2		14.5	121.0%
03/26/94	-	DHD130A	3		2								1	i
40120		DE10420A	Ç	8	2.03	1.72	23.65	36.05	05/18/94		3		25.7	80.7%
45//L/90	V	recional and	2	1								\$	700	13 40/
10/06/20	0	XI 24	185	110	3.00	3.72	22.00	29.57	08/01/94			3	43.2	2,4
100/10		i !												

Total Drill Time ==

6.78 Hours 18.14 Feet / Hour

Average Penetration Rate =

5.44 Hours 31.62 Feet / Hour

Total Redrill Time == Average Penetration Rate ==

2" North X 0" E/W 27.76 25.29 Verticality Information

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 539 Area "B"

10.7% 8.8% Overbreak 43.2 Theoretical Volume (CU,YD.) 47 Spec. Concrete (CU.YD.) Non-Spec. Concrete (CU.YD.) CUT-OFF WALL CONSTRUCTION 8 Grout (CU.YD.) 04/22/94 06/04/94 Concrete Date 92.80 Redrill (FT / HR) Penetration Rate Drill 40.99 19.27 (FT/HR) 1.25 Redrill (RRS) Pure Drill Time Drill (HRS) 283 3.58 116 Redrill (FT) 8 116 ĒE. CUT-OFF WALL EXCAVATION Excavation DHD130A XL-24 Rig 04/21/94 06/24/94 Drilling Date

Total Drill Time = Average Penetration Rate =

6.41 Hours 10.76 Feet / Hour

1.25 Hours 92.80 Feet / Hour Average Penetration Rate =

Total Redrill Time =

Verticality Information

1" North X 1" West 30.80 29.12 At Full Depth =

S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile #540 Area "B"

		AVA CVC AVAIL	ATION						CUT-OFF V	WAL	L CONSTRUCTION		F	
	201-0	JEE WALL EXCAVE	NO.		Ouro Drill Time		Penetration Rate	9,			Non-Spec.	Spec.	neoretical	1
	Fauipmen	+	Unil Footage			T	===	Dodrill	Concrate	Smit	Concrete	Concrete	Volume	Overbreak
Drilling	Be	Excavation	E C	Redrill		Hedri		ET / HB	Date	(CU.XD.)	(CU.YD.)	(CU.YD.)	(CU.YD.)	
Date	*	Method	Œ	(FI)	(HHZ)	(SHE)	TULL TILL							
		DUD130&	32		1.93		33.68		03/24/94	82	2.2		15.2	46.3%
03/24/94		שפוחוח	3				!				8		25.7	12.9%
05/31/94	_	DHD130A	110	8	1.70	1.80	26.47	1.8	\$ /10/00		3			
07/25/94	0	XL-24	185	110	7.79	5.00	9.63	22.00	07/26/94			83	43.2	22%
0.67/10														

11.42 Hours 16.20 Feet / Hour

Total Drill Time = Average Penetration Rate =

6.80 Hours 25.74 Feet / Hour

Total Redrill Time = Average Penetration Rate ==

2.75" North X O" East / West Verticality Information

At Full Depth = S-ARC North = S-ARC South =

29.12°

Quality Coring: None.

Comments:

Primary Pile #541

Area "B"

									CUT-OFF\	CUT-OFF WALL CONSTRUCTION	TRUCTION			
	1		NC IN									0000	Theoretical	
	3						Donotration Bate	q			Non-upac.	oner.	TION CHOCK	
	A CHILLIANS	i	Drill Footage		Fure Drill I me		diction in	2	,		Character	Concrete	Volume	Overbreak
					-	Dodeill		Redri	Concrete		College	alore e		
Drilling	Rid	Excavation	5	Hedrill	5		į	(dn / 10)	Pate	(CEX.II)	(CU.YD.)	(CC:YD:)	CU.VD.)	
200	*	Method	Œ	E	(HRS)	HE	(FI / NR)	TULL ILL	Caro					
Dale	E	DOI DOIN											1	/00 00
					•		000		04/18/94	8			2.0	30.5%
04/48/04	_	DHD130A	110		5.45		SO.50		5	3				
5	_											77	43.2	27.3%
	_		100	110	8	1.25	15.15	88.00	06/22/94			3	10	
06/21/94	_	DHD130A	3											

Total Drill Time = Average Penetration Rate =

10.37 Hours 17.84 Feet / Hour

Total Redrill Time = Average Penetration Rate =

1.25 Hours 88.00 Feet / Hour

Verticality Information

'0" North / South X 0" East / West 22.60" 36.62"

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile #542 Area "B"

CUI - OFF WALL EXCAVATION Pure Drill Time Pertentiation Rate Pertentiation Rate Pertentiation Rate Redrill Followed From Concrete Pertentiation Rate (CU,YD) Non-Spec. Spec. Spec. Spec. Spec. Spec. Spec. Spec. Nothing (CU,YD) Incoration Spec. Spec. Nothing (CU,YD) Incorates (CU,YD) Concrete (CU,YD) Concrete (CU,YD) Concrete (CU,YD) COLYDD)	•		AVA OVER 1 PAGE 17	HO!						CUT-OFF WALL CONSTRUCTION	VALL CONS	TRUCTION			
Equipment Dnill Footage Pure Dnill Time Prefetation Pale Hope In Profitation Pale Hope In Image In Pale In Image In Im		0-100	HE WALL EXCAVA	NOIL								Non-Shee	Spec	Theoretical	
Fig. Excavation Drill Redrill Concrete GruyDj GulyDj	and an air real		Drill Footage		_		enetration Ha			,	1000	Constituto	Vokimo	Overhreek	
# Method (FT) (HRS) (HRS) (FT) HRS	Drilling	Rice		Drill	T	1	Redrill	Drill	Redrill	Concrete	Grout	Concrete	COLLYD	(CU.YD.)	Overbroan
34 2 2.25 33.10 19.38 05/17/94 25 6 14.7 11 34 2 DHD130A 110 110 3.75 33.10 19.38 05/17/94 25 6 55.7 25.7 34 2 DHD130A 110 110 2.75 6.75 27.27 16.30 07/29/94 48 48 43.2	Date	*	Method	Œ	(FI)	(HRS)	(HRS)	(FI / HH)	(F1 / HH)	Date	(20,10.)	20.00			
2 DHD130A 110 63 1.42 3.25 33.10 19.38 05/12/94 25 6 25.7	A0100100		DHD130A	83		2.25		28.00		03/22/94	8			14.7	103.9%
25.7 CHD130A 110 110 2.75 6.75 27.27 16.30 07/29/94 48 43.2		. (VOE FUND	110	8	1.42	3.25	33.10		05/12/94	83	φ		25.7	20.7%
1 UHDI3UA 185 110 2.75 6.75 27.27 16.30 07/29/94 48 43.2	48/LL/69	ν .	Section of	÷	Ç		3.75		29.33			31		25.7	20.7%
2 XL-24 185 110 2.75 6.73 21.21 10.30	06/16/94	-	DHUISGA	2	2	-		100					84		11.1%
	07/28/94	2	XL-24	185	110	2.75	0.0	21.21							

6.42 Hours 28.82 Feet / Hour

Total Drill Time = Average Penetration Rate =

13.75 Hours 20.58 Feet / Hour

Total Redrill Time = Average Penetration Rate =

Verticality Information

8.0" North X 2.0" West

36.62" At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile #543 Area "B"

	Spec. Theoretical	Concrete	Medical Controlled County (CU.YD.) (CU.YD.)	(FI/HH) (FI/Hh) Caid	27.95 04/06/94 45 1.0 28.7 60.2%		(a) (a)
	Time	illie.	Redrill	(HHS)	4.40 27.95	•	
20	- C	III Footage	Drill Redrill Drill		123		185 123
OFF WALL EXCAVATION	JUI - OFF WALL EACHANIC	Dringment	Rig Excavation	# Method	2 DHD130A		1 XL-24
Ľ	-	Į.	Drilling	Date	04/05/04	# (PO/F)	06/14/94

Total Drill Time = Average Penetration Rate =

6.90 Hours 26.81 Feet / Hour

2.42 Hours 50.83 Feet / Hour

Total Redrill Time = Average Penetration Rate =

At Full Depth = S-ARC North = S-ARC South = Verticality Information

2.5" North X 3.25" East 16.73"

29.96

Quality Coring: None.

Secondary Pile #544 Area "B"

		ALL MAIN TOWN	HON						CUT-OFF WAL		L CONSTRUCTION			
		UPT WALL EXCAVE	A I I CIA								Mon Chan	Snor	Theoretical	
	200000	Ť	Drill Footage		Pure Drill Time		Penetration Hate				NOIL STORY		Making.	O make mark
			2000		-		170	المحوط	Concrete	-	Concrete	Concrete	AOMITTE	CVEDICEN
Drilling	S	Excavation		Redrill	5	Hedrill	5		2000	300		5	(A)	
200	2	Mothod	Ę	Ę	HRS	(HRS)	F) HB)	FI/HR)	Date	(CO.VD.)	(.00.10.)	20.10.	120.00	
Cate	#	Mento												
									03/4B/04	5			14.9	234.6%
03/18/94	2	DHD130A	\$		2.75		23.27		100	3				
							1		40,10,10			S	43.2	15.7%
05/05/94	-	XL-24	185	2	3.83	97.	31.25	3.5	\$ 15/5			3		

6.58 Hours 28.12 Feet / Hour

Total Drill Time = Average Penetration Rate ==

Total Redrill Time = Average Penetration Rate =

1.00 Hours 64.00 Feet / Hour

Verticality Information

2.75" North X 5.5" East 29.96"

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile #545

Area "B"

									CUT-OFFV	VALL CONS	TRUCTION			
	2 2 2	THE WALL EXCAVE	NOIL								Men Cago	2000	Theoretical	
	Con vivo con		I Drill Footsche		Pure Drill Time		Penetration Rate	te			NOI-SORC	oper.	M-him	Amphant.
		1	2				-	Doctrill	Contrate	- E	Concrete	Concrete	Nomme	
Drilling	Ë	Excavation	<u> </u>	Redril	5	Hedri	5		20000		9		9	
	? 4	Mathod	<u>L</u>	٤	(HRS)	(HRS)	FT/HB	FT/HB)	Date	CO.YD.)	(CU.TU.)	170.00		
Date	*	Medica	1											
							9		10/06/60	23			229	131.6%
03/29/94	-	DHD130A	88		3.33		3.5		th inch	3				
									***************************************			47	687	888
07/05/95	0	DHD130A	185	86	5.87	4.73	4.82 82	20.72	0//0//94			ř	1	
20/00/10														

Total Drill Time = Average Penetration Rate =

9.20 Hours 20.11 Feet / Hour

Total Redrill Time = Average Penetration Rate =

4.73 Hours 20.72 Feet / Hour

Verticality Information

10" South X 6.5" West

36.88" At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile #546 Area "B"

	1	AVA 1 1 EVO AVV	NOIT						CUT-OFF WAL	/ALL CONS	TRUCTION			
	200	JEE WALL EACHY	NOIL								Man Cross	Spor	Theoretical	
	Countingen	10	I Drill Footage		Pure Drill Time		Penetration Hate			_	NOT - Spec.	abar.	i i i i i i i i i i i i i i i i i i i	
	T T	Eventerion	lli-C	Redrill	Dell	Redrill	E C	Redrill	Concrete	Grout	Concrete	Concrete	volume	Cverbreak
Guilland	ב ב	Cycavation	E E	Ę	MDC	(HBC)	(FI/HR)	(FT / HR)	Date	(CU.YD.)	(CC.YD.)	(CU.YD.)	(CU:VD:)	
Date	*	Method			2	2								
	1	4000	ű		2.05		27.11		03/16/94	45			14.2	215.9%
03/16/94		ANGIONO.	5											
	_	5	404	7	4 08	1 17	30.39	52.14	04/29/94			5	43.2	18.1%
8/23/80	-	VF-24	3	5	3									

Total Drill Time =

6.33 Hours 29.23 Feet / Hour

Average Penetration Rate =

1.17 Hours 52.14 Feet / Hour

Total Redrill Time = Average Penetration Rate =

Verticality Information

0" North / South X 1.0" East

36.88" At Full Depth =

31.04" S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile #547 Area "B"

12.8% 71.3% Overbreak 43.4 22.2 Theoretical Volume (CU,YD.) \$ Spec. Concrete (CU.YD.) CUT-OFF WALL CONSTRUCTION

Concrete Grout Concrete

Date (CU.YD.) (CU.YD.) æ 04/12/94 05/19/94 Concrete Date 43.78 Redrill (FT / HR) enetration Rate 29.55 20.74 Drill (FT / HR) 2.17 Redrill (HRS) oure Drill Time Drill (HRS) 4.58 3.08 જ Redrill (FI) Drill Footage Drill (FT) 98 8 CUT-OFF WALL EXCAVATION Excavation Method DHD130A XL-24 Equipment Rig 8 2 04/11/94 05/18/94 Drilling Date

Total Drill Time = Average Penetration Rate =

7.66 Hours 24.28 Feet / Hour

Total Redrill Time = Average Penetration Rate =

2.17 Hours 43.78 Feet / Hour

Verticality Information

3.5" North X 2.5" West 31.04" 22.99"

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments: 115' of tremie pipe left in hole. Was hung at bottom of hole due to fast setting concrete.

Secondary Pile #548 Area "B"

		***************************************	1401						CUT-OFF V	WALL CONS	CONSTRUCTION			
		FF WALL EXCAVA	20								Alam Canad	Spor	Theoretical	
			Drill Footsone		Pure Drill Time		Penetration Rate				NOII-Spec	300	Web into	Ambrook
	Edulpmen		PRIMO I IIIO			2777	-	Dodrill	Concrete	Store	Concrete	Concrete	Nomme	CVERTICIENT
Drilling	Rig	Excavation		Hedrill		Hedra Hedra		FT/HB	Date	(CU,YD.)	(CU.YD.)	(CU.YD.)	(CU.YD.)	
Date	*	Method	(FI)	(E)	(ZH	CUL								
							8		12/16/03	7	48		12.6	708.9%
12/16/93	8	DHD130A	ঠ		3.00		3.6		26/01/20	5	!			
						000	20.00	16.20	AP/01/AA	24	1.4		15.2	67.3%
04/02/94	-	DHD130A	8	አ	C.	0.00				i				
							44 02	55 OB	05/03/04			48	43.2	11.1%
05/03/94	_	DHD130A	2 85	89	80.8	21.18			to looks					

11.34 Hours 16.31 Feet / Hour

Total Drill Time = Average Penetration Rate =

4.51 Hours 26.39 Feet / Hour

Total Redrill Time = Average Penetration Rate =

Verticality Information

1.0" North X 1.5" West 22.99" 27.05"

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile #549 Area "B"

									CLIT-OFF V	VALL CONS	TRUCTION			
	CITT	-OFF WALL EXCAVA	NOF								Č	0000	Thompsinal	
			Drill Contago		Pure Orill Time		Penetration Rate	ıte			Non-spec.	3000	i leonement	A Townson
	Fauromen								Commence	+ 200	Concrate	Concrete	Volume	CVERTICAL
Drilling	Rig	Excavation	Drill	Redrill		Redrill		Hedrii Ciri	Colciere			(CK II)	(CU.YD.)	
200	*	Method	<u>_</u>		(HRS)	HRS)	(FI / HH)	FI / HH)	Dale	20.00	100.10.			
Dale	Ł	2000												
					200		20.50		04/15/94	40			292	52.9%
04/15/94	8	DHD130A	112		3.5		2.12							
									40,00,00			48	43.2	11.1%
10/10/10/	_	XI -24	185	112	2.83	2.42	25.80	46.28	\$ (20/20			?		
5/2/20														

Total Drill Time = Average Penetration Rate =

8.16 Hours 22.67 Feet / Hour

2.42 Hours 46.28 Feet / Hour

Total Redrill Time = Average Penetration Rate =

Verticality Information

1.25" North X 0" East / West

27.05" At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile #550 Area "B"

Alea D			1401+						CUT - OFF WALL CONSTRUCTION	VALL CONS	TRUCTION			
	0-100	CUT-OFF WALL EXCAVATION	201								0 12	Chan	Theoretical	
			Drill Footage		Pure Drill Time		Penetration Rate	- 1			Non-Spec.	3	N-F-	A
Drilling	Rig	Excavation	Drill	_		Redrill	Drill	Redrill	Concrete	Grout	Concrete	COLVD.)	(CU,YD.)	Overblean
Date	*	Method	E		(HRS)	(HHS)	FI / HR)	(11 / 11)	Dale	20.00				
10/19/93	-	XL-24	22		0.92		69.57		10/19/93		235		14.9	67.3%
11/06/03	_	DHD130A	25	25		3.25		19.69	11/30/93		88		12.1	212.9%
06/00/11		DHD130A		22		2.42		21.49	03/25/94	8	22		15.2	46.3%
# (EZ/G)	- ,	DHD430A	8	55		1.00		65.00	04/22/94		27		14.7	83.5%
04/22/94		DHD130A	3 5	3 8	2.08	3.83	27.40	16.45	05/13/94		83		28.0	14.2%
06/28/94		XL-24	185	120	3.25	2.75	20.00	43.64	06/28/94			47	43.2	8.8%

Total Drill Time = Average Penetration Rate =

6.25 Hours 29.60 Feet / Hour

13.25 Hours 27.47 Feet / Hour

Total Redrill Time = Average Penetration Rate = Verticality Information

O" North / South X O" East / West

At Full Depth = S-ARC North = S-ARC South =

24.93" 26.76"

Quality Coring: None.

Comments:

Primary Pile #551

	ڊ	£		39.3%		11.1%	
	4	CVERDICA		8			
Theoretical	Metallogina	Volume	20.10.1	28.7		43.2	
Chan	opper.	Concrete	(00.10.)			48	
N	Non-spec.	Concrete	(CO. VD.)				
		Grout	(CU.YD.)	40	!		
		Concrete	Date	04/13/94	0 0	05/26/94	
	te	Redrill	(FT/HR)			44.73	
	Penetration Rai	Drill	(FT/HR)	20 03	3.53	21.23	
		Redrill	(HRS)			2.75	
	::==	Drill	(HRS)	100	t,	2.92	
		Γ	Œ			123	
NOL	Drill Footage	Drill	E		123	185	
FF WALL EXCAVA			Method		DHD130A	XL-24	
CUT-OF	in in more	Rich	P *		0	-	_
		Drilling	D def	Daid	04/13/94	05/24/94	
	PEF WALL EXCAVATION	F WALL EXCAVATION Pure Drill Time Penetration Rate Non-Spec. Spec. Theoretical	CUTOFF WALL EXCAVATION CUTOFF WALL EXCAVATION Concrete Cauginant Excavation Drill Redrill Drill Redrill Drill Redrill Concrete Concr	CUTOFF WALL EXCAVATION Pure Drill Time Paretration Rate Paretration Rate Paretration Rate Paretration Rate Pure Drill Footage Pure Drill F	FWALL EXCAVATION	CUT.—OFF WALL EXCAVATION Cut.—OFF WALL EXCAVATION Pure Drill Time Pure Drill Time Penetration Rate Part of time Redrill Pure Drill Footside Pure Drill Footside	CUT.—OFF WALL EXCAVATION CUT.—OFF WALL EXCAVATION Pure Drill Front Equipment Penetration Rate Penetration Rate COT.—OFF WALL EXCAVATION Spec. Theoretical Non-Spec. Spec. Theoretical Non-Spec. Theoretical Non-Spec. Pure Drill Folds Pure Drill Folds

Total Drill Time = Average Penetration Rate =

8.26 Hours 22.40 Feet / Hour

Total Redrill Time = Average Penetration Rate = Verticality Information

2.75 Hours 44.73 Feet / Hour

0" North / South X 0" East / West 26.76" 20.22" At Full Depth =

S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile #552 Area "B"

	1	AVA OVE LIAM	HOH.						CUT-OFF WAL	$^{\circ}$	ONSTRUCTION			
	0-100	-OFF WALL EXCAVATION	NO								Non-Span	l	Theoretical	
	in in mon		Drill Footage		Jure Drill Time		Penetration Hate	9			NOT COOK		New York	O. o. t. c.
	undinba			1777			1	Redrill	Concrete	Grout	Concrete		Volume	Cverbreak
Drilling	Rig	Excavation	Ē (HBS	F / HR	FT / HR	Date	(CU.YD.)	(CU.YD.)	(CU.YD.)	(CU.YD.)	
Date	*	Method	Ē	(1)	2	2								
09/17/93	-	DHD130A	55		1.33		48.87		10/13/94		18		15.2	18.6%
2014 100	•	DUD1304	3	55		2.50		26.00	03/14/94	42			15.2	176.7%
U3/14/94		A COLOR	3	} }	8	8	25.55	20.00	05/17/94		31.5		25.7	22.6%
05/16/94	8	DHD130A	9	8	87	76.3	3							
07/13/94	F	XL-24	185	110	2.27	4.26	33.04	25.82	07/14/94			47.5	43.2	10.0%

Total Drill Time = Average Penetration Rate =

5.60 Hours 33.04 Feet / Hour

Total Redrill Time = Average Penetration Rate =

9.68 Hours 24.79 Feet / Hour

Verticality Information

4.0" South X 3.0" West

20.22" 30.73" At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile #553 Area "B"

		ALL ACAPT	I WOIH						CUT-OFF V	WALL CONSTRUCTION	TRUCTION			
		THE WALL EXCAVA											Theoremical	
			Drill Ecotogo		Pure Drill Time		Penetration Rate	te			Non-Spec.	9000	Hederkal	
				I					0	4	Concrete	Concrete	- Amiliano	YES DESK
0.111.0	.5	Evesvation	Drill	Redrill	20	Redrill	5		Concrete	1000	900000			
5	2		(Ę	1000	(JODA)			Date	(00.00)	(CU.YD.)	(CU.YD.)	(.0.10.)	
Date	*	Method	(14)		2	2		1						
						-			10,000		000		24.1	503 F94
04/02/94	2	DHD130A	103		3.67		28.07		45/06/40	\$	O'V			
												97	43.5	11 1%
08/20/94	-	XL-24	185	103	3.67	292	22.34	35.27	06/20/94			₽	7.24	
0 100														

Total Drill Time = Average Penetration Rate =

7.34 Hours 25.20 Feet / Hour

Total Redrill Time = Average Penetration Rate =

2.92 Hours 35.27 Feet / Hour

Verticality Information

1.0" South X 2.0" West

30.73" At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile #554 Area "B"

	1110	EE WALL EYCAV	ATION						CUT-OFF V	VALL CONS	TRUCTION		•	
Ī		יייייייייייייייייייייייייייייייייייייי	Drill Footage		Pure Drill Time		Penetration Rate	te			Non-Spec.	Spec.	Theoretical	
Drilling	Rig	Ψ,	Drill	Redrill	Drill	Redrill	Drill FT / HB)	Redrill (FT / HR)	Concrete	Grout	Concrete (CU.YD.)	Concrete (CU.YD.)	(CU.YD.)	Overbreak
Date	*	Method		(11)	CUL	íQ III								
03/18/94	-	XL-24	8		1.58		39.24		03/18/94	22			14.5	72.7%
05/18/94	2	DHD130A	105	8	0.87	1.13	49.43	54.87	05/19/94		8		24.5	30.5%
07/11/94	-	DHD130A	185	105	3.83	3.75	20.89	28.00	07/12/94			48	43.2	11.1%

6.28 Hours 29.46 Feet / Hour

Total Drill Time = Average Penetration Rate =

4.88 Hours 34.22 Feet / Hour

Total Redrill Time = Average Penetration Rate =

Verticality Information

0" North / South X 10" East 23.90" 22.71"

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile #555 Area "B"

	1	CELMAII EVOAVA	MICH						CUT-OFF V	VALL CONS	TRUCTION			
		ILL EVOLUTION			Ŀ		Determinent				Non-Spec	Snec	Theoretical	
	Fouriernent	-	Drill Footage		Jure Dull I me		enerranon han	- 1					16-4-1	Acres 4
Drilling	Rig	Ð	Drill	Redrill	Drill	Redrill		Redrill (T. / LID)	Concrete	Grout	Concrete	COLYD.)	(CU.YD.)	Overbiedan
Date	*	Method	(FI)	(F1)	(HE)	CHES	מטו/ וגו	(UII / III)	Caro					
04/18/94	-	DHD130A	105		3.83		27.42		04/19/94	100	60		24.5	340.5%
	. ,	40000	ç	Ę		040		43.39	05/05/94	8	9		24.5	67.2%
45/02/34	-	ADSIGNA CONTRACTOR	3	3		İ						1	9	à
05/27/94	-	DHD130A	185	105	3.33	2.17	24.02	48.39	05/27/94			c.rc	43.2	

Total Drill Time = Average Penetration Rate =

7.16 Hours 25.84 Feet / Hour

Total Redrill Time = Average Penetration Rate =

Verticality Information

4.59 Hours 45.75 Feet / Hour

0.75" South X 0" East / West

22.71" 14.24" At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile #556 Area "B"

	CUT-0	FF WALL EXCAVA	VITION						CUT-OFF V	VALL CONS	TRUCTION			
	Fornipmen		Drill Footage		Pure Drill Time		Penetration Rate	le le			Non-Spec.	Spec.	Theoretical	
Drilling	Rig	Excavation	Drill	Redrill	Drill	Redrill	Drill	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
Date	*	Method	Œ	(FI)	(HRS)	(HRS)	(FT/HR)	(FT/HR)	Date	(CU.YD.)	(CU:VD:)	(CU.YD.)	(CU.YD.)	
03/17/94	-	DHD130A	28		1.00		97.00		03/17/94	\$			14.9	201.1%
	•	400	9			4	24 BE	20.80	05/18/04		8		23.4	%
05/17/94	-	DHUISOA	3	Š	2	8.	3	3			2			
10/02/30	•	XI - 24	185	001	2.75	3.33	30.91	30.03	07/01/94			47	43.2	8.8%
to ionion	-	V- 54												

4.88 Hours 37.91 Feet / Hour

Total Drill Time == Average Penetration Rate ==

5.28 Hours 31.06 Feet / Hour

Total Redrill Time = Average Penetration Rate =

Verticality Information

7.0" South X 7.0" West

14.24" 31.14" At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile #557 Area "B"

	CUT-0	IFF WALL EXCAVA	TION					٦	CUT-OFF V	VALL CONS	TRUCTION			
	Fauipment	±	Drill Footage		Pure Drill Time		Penetration Rate				Non-Spec.	Spec.	Theoretical	
Drilling	Rig	Δ	Drill	_	Drill	Redrill		Redrill	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
Date	*	Method	E	Œ	(HRS)	(HRS)	(FT / HH)	7	Date		(CU.YD.)	(CO. VD.)	(CO,TD.)	
04/27/94	-	DHD130A	8		3.34		28.14		04/28/94	1 23	6		220	191.6%
	,	5	101	3	90	. 2 47	20 55	43.30	06/00/04			S	43.2	15.7%
06/08/94		AL-24	3	Š.	8	7	3	70.05	to looks			3		
-	1													

Total Drill Time = Average Penetration Rate =

6.42 Hours 28.82 Feet / Hour

Total Redrill Time = Average Penetration Rate =

2.17 Hours 43.32 Feet / Hour

3.5" South X 10" West 31.14"

At Full Depth = S-ARC North = S-ARC South =

Verticality Information

Quality Coring: None.

Secondary Pile #558 Area "B"

	0-11-0	-OFF WALL EXCAVA	ATION						CUT-OFF V	VALL CONS	TRUCTION			
ľ	-dulinment		Drill Footage		Pure Drill Time		Penetration Rate	ıte			Non-Spec.	Spec.	Theoretical	
Drilling	Rig.	Excavation	Die (Redrill	Drill HRS)	Redrill	Drill (FT / HR)	Redrill (FT / HR)	Concrete	Grout (CU.YD.)	Concrete (CU.YD.)	Concrete (CU.YD.)	Volume (CU.YD.)	Overbreak
Date	#	Menio												
03/21/94	-	DHD130A	88		1.25		52.00		03/21/94	ଛ			15.2	31.8%
05/10/94	2	DHD130A	95	85	1.36	1.02	22.06	63.73	05/11/94	8	3.5		22.2	51.0%
05/25/94	٥	DHD130A	185	98	8.09	1.33	11.12	71.43	05/25/94			52.5	43.2	21.5%
00/00/00														

Total Drill Time = Average Penetration Rate =

10.70 Hours 17.29 Feet / Hour

Total Redrill Time = Average Penetration Rate =

2.35 Hours 68.09 Feet / Hour

Verticality Information

7.0" South X 3.75" West

At Full Depth =

20.14" 37.78" S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile #559 Area "B"

٢	TILO	CE WALL EYOAVA	NOIT						CUT-OFF V	VALL CONS	TRUCTION			
ľ	o i ion	+ WALL LACAN	Drill Footage		Pure Drill Time		Penetration Rate	0			Non-Spec.	Spec.	Theoretical	
Drilling	Rig	ũ	Drill	_	Drill	Redrill		Redrill	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
Date	*	Method	E	(F1)	(HHS)	(SHE)	LI / HR	(FI / HR)	Dale	70.10.	(20.10.)	20.70	20.10.	
04/21/94	-	DHD130A	98		2.53		37.55		04/21/94	45			22.2	102.8%
96/82/90	-	XL-24	185	88	3.17	2.00	28.39	47.50	76/62/90			47	43.2	8.8%

5.70 Hours 32.46 Feet / Hour

Total Drill Time = Average Penetration Rate ==

Total Redrill Time = Average Penetration Rate =

2.00 Hours 47.50 Feet / Hour

Verticality Information

2.0" North X 2.0" West 37.78" 19.33"

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile #560 Area "B"

	CUT-0	IFF WALL EXCAVA	ATION						CUT-OFF V	VALL CONS	TRUCTION			
	Chilipmen	-	Drill Footage		² ure Drill Time		Penetration Rate	ei ei			Non-Spec.	Spec.	Theoretical	
Drilling	Bis	Fxcavation	Drill	Redrill	Dill O	Redrill	Drie	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
Date	" *	Method	Œ	<u> </u>	(HRS)	(HRS)	(FT / HR)	(FT / HR)	Date	(CU.YD.)	(CU.YD.)	(CU.YD.)	(CU.YD.)	
03/23/94	-	DHD130A	88		1.17		52.99		03/24/94	8	2.2		14.5	53.3%
06/03/04	0	DHD130A	9	8	1.92	1.67	19.79	37.13	06/07/94	8	N		23.4	15.6%
06/16/94		DHD130A	88	100		1.30		76.92	06/17/94		8		22.2	35.2%
07/18/94	*	XL-24	185	9	3.92	3.33	21.68	30.03	07/19/94			48	43.2	11.1%

7.01 Hours 25.68 Feet / Hour

Total Drill Time = Average Penetration Rate ==

Total Redrill Time = Average Penetration Rate =

6.30 Hours 41.59 Feet / Hour

Verticality Information

0" North / South X 10" East 19.33" 19.91"

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile #561 Area "B"

CUT-OFF WALL CONSTRUCTION	Penetration Rate Non-Spec. Spec. Theoretical	Drill Redrill Concrete Grout Concrete Concrete	Date (CU.YD.) (CU.YD.) (CU.YD.)	4.00 28.00 04/15/94 30 2.9 24.3 35.5%	3.25 2.00 24.92 52.00 06/27/94 47 43.2 8.8%	
	Time	Redrill	(FT)	4.00	3.25 2.00	
	Footage Pure Dril	Drill Redrill Drill	_	104	185 104	
OFF WALL EXCAVATION	ot	Excavation	Method	DHD130A	XL-24	
O-TOO	Fauiomen		Date #	04/15/94	06/24/94	

Total Drill Time = Average Penetration Rate =

7.25 Hours 25.52 Feet / Hour

Total Redrill Time = Average Penetration Rate =

2.00 Hours 52.00 Feet / Hour

Verticality Information

2.5" South X 0" East / West At Full Depth = S-ARC North = S-ARC South =

19.91"

Quality Coring: None.

Secondary Pile #562 Area "B"

	O TI O	EE WALLEYCAV	ATION						CUT-OFF V	VALL CONS	TRUCTION			
	o initial of	* ************************************	Drill Footage		Pure Drill Time		Penetration Rate	te			Non-Spec.	Spec.	Theoretical	
Drilling	Rig	Ţ,	PIP (Redrill	Orill	Redrill	Orill GL/TJ	Redrill (FT / HR)	Concrete	Grout	Concrete (CU YD.)	Concrete (CU.YD.)	Volume (CU.YD.)	Overbreak
Date	#	Method	E .	(1.1)	2	(2)	(1117)			100				
03/22/94	-	DHD130A	8		1.75		36.00		03/22/94	8			14.7	35.9%
06/10/94	2	DHD130A	100	83	1.67	2.00	22.16	31.50	06/13/94		43		23.4	84.1%
07/13/94	-	XL-24	185	100	3.67	3.58	23.16	27.93	07/14/94			47	43.2	8.8%

7.09 Hours 26.09 Feet / Hour

Total Drill Time = Average Penetration Rate =

5.58 Hours 29.21 Feet / Hour

Total Redrill Time = Average Penetration Rate =

Verticality Information

4.5" South X 2.5" East

At Full Depth = S-ARC North = S-ARC South =

23.82 15.13

Quality Coring: None.

Comments:

Primary Pile #563 Area "B"

Time Penetration Rate Concrete Grout Non-Spec. Inportical Spec. Inportical Northcal Spec. Overbreak 1.00 (HRS) (FT/HR) (FT/HR) (FT/HR) (FT/HR) (FT/HR) (CU/YD.) (CU/YD.) <th>CUT-OFF WALL EXCAV</th> <th>JFF WALL EXCAV</th> <th>-</th> <th>ATION</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th>CUT-OFF V</th> <th>VALL CONS</th> <th>RUCTION</th> <th></th> <th></th> <th></th>	CUT-OFF WALL EXCAV	JFF WALL EXCAV	-	ATION						CUT-OFF V	VALL CONS	RUCTION			
Redrill Drill Redrill Concrete Grout Concrete Concrete Volume Overbrit	Parisment Drill Footage P	Drill Footage	Drill Footage	٩	o,	Pure Drill Time		Penetration Ra	te			Non-Spec	Spec	Theoretical	
(HRS) (FT/HR) (FT/HR) Date (CU,YD.) (CU,YD.) (CU,YD.) (CU,YD.) 32:00 04/09/94 60 22.4 16 1.73 28:57 55.49 06/22/94 47 43.2	Committee Only	Committee Only				ii.C	Redrill	Drill	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
32.00 04/09/94 60 22.4 16 . 1.73 28.57 55.49 06/22/94 47 43.2	56	56		6		HPS	(HRS)	(FT / HR)	(FT / HR)	Date	(CU.YD.)	(CU.YD.)	(CU.YD.)	(CU.YD.)	
32.00 04/09/94 60 22.4 16 1.73 26.57 55.49 06/22/94 47 43.2					1	2									
. 1.73 26.57 55.49 06/22/94 47 43.2	04/08/94 2 DHD130A 96	DHD130A	96			3.00		3200		04/09/94	8			22.4	
# 170 Str. 100 Str. 1		!!		-				8	0, 22	40/00/30			47		
	1 XL-24 185 96	185		8		55	67.1	79.5	24:00	46/27/80	Ī		•		

Total Drill Time = Average Penetration Rate =

6.35 Hours 29.13 Feet / Hour

Total Redrill Time = Average Penetration Rate =

1.73 Hours 55.49 Feet / Hour

Verticality Information

6.0" South X 6.5" West At Full Depth = S-ARC North = S-ARC South =

22.13"

Quality Coring: None.

Secondary Pile #564 Area "B"

	CUT-0	FF WALL EXCAVA	ATION						CUT-OFF V	WALL CONS	TRUCTION			
	-disipment		Drill Footage		Pure Drill Time		Penetration Rate	le			Non-Spec.	Spec.	Theoretical	
Drilling	Pig.	Excavation	<u></u>	Redrill	Drill	Redrill	Drill (FT / HR)	Redrill (FT / HR)	Concrete	Grout	Concrete (CU.YD.)	Concrete (CU.YD.)	Volume (CU.YD.)	Overbreak
Date	#	Menica			2	2	7							
03/17/94	-	DHD130A	æ		1.33		48.87		03/17/94	8			15.2	31.8%
05/31/94	-	DHD130A	98	8	0.83	1.80	37.35	36.11	06/01/94		88		22.4	24.9%
07/05/94	-	XL-24	185	8	2.58	2.92	34.50	32.88	07/05/94	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		47	43.2	8.8%

Total Drill Time = Average Penetration Rate ≍

4.74 Hours 39.03 Feet / Hour

Total Redrill Time = Average Penetration Rate =

4.72 Hours 34.11 Feet / Hour

Verticality Information

7.75" South X 1.5" East 22.26" 21.41"

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile #565

Area "B"

Farinment		NOL						CUT-OFF V	VALL CONS	HUCTION		-	
		Drill Footage		Pure Drill Time		Penetration Rate	9			Non-Spec.	Spec.	Theoretical	
Drilling	Excavation	Dill	Redrill	F	Redrill	Drill	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
	Method	Ę	F	(SHS)	(HRS)	EH/HB	(FI/HR)	Date	(CU.YD.)	(CU.YD.)	(CU.YD.)	(CU.VD.)	
2000				-									
03/29/94	DHD130A	76		2.67		36.33		03/29/94	86			7.22	306.2%
	5	Ç	3	C	0.75	4	25.07	06/04/04			47	43.5	8 89%
06/23/94	AL-24	2	'n	8	2/3		30.E	ماديا عد					

Total Drill Time = Average Penetration Rate =

5.50 Hours 33.64 Feet / Hour

Total Redrill Time = Average Penetration Rate =

2.75 Hours 35.27 Feet / Hour

Verticality Information

11" South X 2.0" West 21.41" At Full Depth = S-ARC North = S-ARC South =

18.94"

Quality Coring: None.

Secondary Pile #566 Area "B"

	CIIT-0	-OFF WALL EXCAVA	ATION						CUT-OFF W	VALL CONS	TRUCTION			
	Fauinmen	=	Drill Footage		Pure Drill Time		Penetration Rate				Non-Spec.	Spec.	Theoretical	
Drilling	Ŗ	Ω.	= C	Redrill	Drill	Redrill	Drill	Redrift	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
Date	#	Method	(FI)	(FI)	GHZ)	CHINO	(LI / UU)	(ULI / LIU)	Dale	20.10.	NO. 10.)	1000		
03/21/94	-	DHD130A	æ		1.25		52.00		03/21/94	18			15.2	18.6%
04/28/94	_	XL-24	185	8	8.17	1.00	14.69	65.00	04/28/94	8			43.2	85.2%
05/12/94	2	DHD130A	185	185		5.00		37.00	05/13/94			19	43.2	41.2%

9.42 Hours 19.64 Feet / Hour

Total Drill Time = Average Penetration Rate =

6.00 Hours 41.67 Feet / Hour

Total Redrill Time = Average Penetration Rate =

15" South X 9.0" West Verticality Information

18.94" 38.13" At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile #567 Area "B"

	CUT-0	FF WALL EXCAVA	\TION						CUT-OFF \	UT-OFF WALL CONS	TRUCTION			
	Fouriomen		Drill Footage		Pure Orill Time		Penetration Rate	6)			Non-Spec.	Spec.	Theoretical	
Drilling	Rig	Ğ	Drift	Redrill	Drill	Redrill	Dull	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
Date	#	Method	(FI)	(H)	(HHS)	QYL.	FI/HR)	וווו / ווו	Date	(70.10)	(20.10.)	20.10.	20.100	
04/05/94	2	DHD130A	66		3.33		29.73		04/05/94	8	2.9		23.1	42.3%
06/15/94	_	XL-24	185	88	3.25	2.17	26.46	45.62	06/15/94			47	43.2	8.8%

6.58 Hours 28.12 Feet / Hour

Total Drill Time = Average Penetration Rate =

2.17 Hours 45.62 Feet / Hour

Total Redrill Time = Average Penetration Rate = Verticality Information

4.0" South X 2.0" West At Full Depth = S-ARC North = S-ARC South =

38.13" 24.72"

Quality Coring: None.

Secondary Pile #568 Area "B"

		¥	53.9%	19.9%	10.0%	
		Overbreak				
	Theoretical	Volume (CU.YD.)	14.9	23.4	43.2	
	Spec.	Concrete (CU.YD.)			47.5	
TRUCTION	Non-Spec.	Concrete (CU.YD.)		28		
WALL CONS		Grout (CU.YD.)	R			
CUT-OFF \		Concrete Date	03/16/94	05/17/94	07/27/94	
		Redrill (FT / HR)		26.89	59.88	
	enetration Rate	Drill (FT / HR)	48.12	128.57	11.21	
		Redrill (HRS)		2.38	1.67	
	Pure Drill Time	Drill (HRS)	1.33	0.28	7.58	
		Redrill		2	100	
ATION	Drill Footage	E	25	9	185	
FF WALL EXCAV		Excavation	DHD130A	DHD130A	DHD130A	
CUT-0	Equipment	Be≉	-	. 0	2	
		Drilling	03/16/94	05/16/94	07/26/94	

Total Drill Time = Average Penetration Rate =

9.19 Hours 20.13 Feet / Hour

Total Redrill Time = Average Penetration Rate =

4.05 Hours 40.49 Feet / Hour

Verticality Information

At Full Depth = S-ARC North = S-ARC South =

5.0° South X 2.5° East 24.72° 24.72°

Quality Coring: None.

Comments:

Primary Pile #569 Area "B"

Т						1
		Overbreak	8	90.0%	15.7%	
	Theoretical	Volume (CU.YD.)	8	r V	43.2	
	Spec.	Concrete (CU.YD.)			S	
TRUCTION	Non-Spec.	Concrete (CU.YD.)				
WALL CONS		Grout (CU.YD.)	-	1		
CUT-OFF \		Concrete	*0,50,50	04/01/94	05/31/94	
	te	Redrill (FT / HR)			17.56	
	Penetration Rate	Drill (FT / HR)		18.67	16.32	
		Redrill			5.58	
	² ure Drill Time	HRS)		5.25	5.33	
		Redrill			86	-
ATION	Drill Footage			88	185	
F WALL EXCAVA		Excavation		DHD130A	DHD130A	
SUT-OF	quipment	Rig *		8	N	
2		Drilling		04/01/94	05/31/94	

Total Drill Time = Average Penetration Rate =

10.58 Hours 17.49 Feet / Hour

5.58 Hours 17.56 Feet / Hour

Verticality Information

Total Redrill Time = Average Penetration Rate =

6.0" South X 7.0" East 24.72" 32.02" At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile #570 Area "B"

									CUT-OFF V	VALL CONS	TRUCTION			
		DEF WALL EXCAVA	200								00-0	Coco	Theoretical	
			Drill Footage		Pure Drill Time		Penetration Rate	Te e			NON-Spec.	opar.	Webine	A. T. T.
			200	Ì					Charles	100	alari Croc	Concrete	AMINO	
Crilling	ä	Excavation	Duil	Redrill	5	Hedrill	5	Hedull		1000		3		
	2	Mathed	Ę	Ę	(HRS)	HRS)	(FT / HR)	(FI/HR)	Date	(CU.YD.)	(CU.YU.)	20.10.	20.12.1	
Date	#	Meriod										-		
											5		200	228 CP.
12/06/04	-	DHD130A	29		2.67		35.21		12/06/93		7/		ì	
5/00/2													000	700 11
	•	5	187	8	262	3.07	31.16	30.62	08/02/94			49.0	49.2	4.070
08/04/94	_	AL-24	3	;										

Total Drill Time =

5.59 Hours 33.09 Feet / Hour

Average Penetration Rate =

3.07 Hours 30.62 Feet / Hour

Total Redrill Time == Average Penetration Rate ==

Verticality Information

2.0° South X 7.5° East 32.02° 27.82°

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile #571 Area "B"

	1	AVAIL EYDAVA	NOIL						CUI - OFF WALL CONSTRUCTION	WALL COINS	100000			
7	5	L WALL LAUNT			David Time		Donotration Rate	đ			Non-Spec.	Spec.	Theoretical	
HOL	nimment		Unil Footage							+	Concrete	Concrete	Volume	Overbreak
Ĺ.,	Sio.	Excavation	Diric	Redrill	E C	Redrill		Hedrill	Concrete					
a de	? *	Method	Œ		(HRS)	(HRS)	FF/HB)	(FI / HR)	Date	(.01.00)	101.00	170.100	100	
Date	-	3								į	•		20.4	A9 08/
04/12/94	8	DHD130A	86		2.00		19.20		04/12/94	3			j	
												47	43.2	8.8%
06/27/94	_	XL-24	185	8	3.65	2.07	24.38	46.38	ts/92/90			•		

Total Drill Time = Average Penetration Rate =

8.65 Hours 21.39 Feet / Hour

2.07 Hours 46.38 Feet / Hour

Total Redrill Time = Average Penetration Rate =

Verticality Information

0" North / South X 0" East / West 27.82" 39.10"

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile #572 Area "B"

	CUT-0	FF WALL EXCAVA	ATION						CUT-OFF W	VALL CONS	TRUCTION			
	Fortiomen		Drill Footage		Pure Drill Time		Penetration Rate	6			Non-Spec.	Spec.	Theoretical	
Drilling	Big.	Excavation		Redrill	HRS)	Redrill (HRS)	Drill (FT / HR)	Redrill (FT / HR)	Concrete	Grout (CU.YD.)	Concrete (CU.YD.)	Concrete (CU.YD.)	Volume (CU.YD.)	Overbreak
Cald	ŧ										3		6	à
12/14/93	8	DHD130A	8		3.08		23.53		12/18/93		6		0.10	30.2%
03/14/94	-	DHD130A	41	8		2.08		43.27	03/15/94	45			9.6	370.0%
05/10/94	_	XL-24	215	8	5.00	1.67	25.00	53.89	05/10/94			8	50.5	25.5%

Total Drill Time = Average Penetration Rate =

8.08 Hours 20.54 Feet / Hour

3.75 Hours 48.00 Feet / Hour

Total Redrill Time = Average Penetration Rate =

Verticality Information

12.0' North X 7.0' East 39.10' 14.71"

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments: Drilled extra 30' because of shale strata

Primary Pile #573

Area "B"

	CUT-0	OFF WALL EXCAVA	TION						CUT-OFF V	WALL CONSTR	TRUCTION			
	auipmen	-	Drill Footage		Pure Drill Time		Penetration Rate				Non-Spec.	Spec.	Theoretical	
Julling	Big	Excavation	Dill	Redrill	Drill	Redrill	Drill	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
Date	*	Method	Œ	(FT)	(HRS)	(HRS)	(FT / HR)	(FT/HR)	Date	(CU.YD.)	(CU.YD.)	(CU.YD.)	(CU.YD.)	
1000,00	c	DUD430A			CPE		28 65		04/06/93	40			22.9	74.8%
# 190/F	V	200	8		2		3		30000	!				
06/22/94	-	DHD130A	185	86	3.00	2.17	29.00	45.16	06/23/94			48	43.2	11.1%

Total Drill Time = Average Penetration Rate =

6.42 Hours 28.82 Feet / Hour

Total Redrill Time = Average Penetration Rate =

2.17 Hours 45.16 Feet / Hour

Verticality Information

8.0" North X 6.0" West 14.71"

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile #574 Area "B"

	CIT-O	IFF WALL EXCAVA	MOIT						CUT-OFF WALL C	VALL CONS	TRUCTION			
	Fauinment	-	Drill Footage		Pure Drill Time		Penetration Rate				Non-Spec.	Spec.	Theoretical	
Drilling	동 *	Excavation		Redrill	HRS)	Redrill (HRS)	Orill (FT / HR)	Redrill (FT / HR)	Concrete Date	Grout (CU.YD.)	Concrete (CU.YD.)	Concrete (CU.YD.)	Volume (CU.YD.)	Overbreak
03/18/04	+	DHD130A	55		200		32.50		03/18/94	8			15.2	44.9%
05/17/94	- ~	DHD130A	8 6	8	1.67	1.92	20.96	33.85	05/18/94		31		23.4	32.8%
07/28/94	1 8	XL-24	185	100	3.42	3.67	24.85	27.25	04/29/94			S	43.2	15.7%

Average Penetration Rate = Total Drill Time =

7.09 Hours 26.09 Feet / Hour

Total Redrill Time = Average Penetration Rate =

5.59 Hours 29.52 Feet / Hour

Verticality Information

1.5" North X 9.0" East

0.39" At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile #575 Area "B"

		Overbreak		128.8%	12.3%	
	Theoretical	Volume	(CU.YD.)	23.1	43.2	
	Spec.	Concrete	(CU.YD.)		48.5	
PRUCTION	Non-Spec.	Concrete	(CU.YD.)	2.9		
WALL CONS		Grout	(CU.YD.)	ß		
CUT-OFF \		Concrete	Date	04/14/94	06/27/94	
		Redrill	(FT / HR)		45.62	
	Penetration Rate	Diel	(FT / HR)	32.14	31.27	
		Redrill	HRS		217	
	Pure Drill Time	Pi-O	(HRS)	3.08	2.75	
		Redrill	Œ		86	-
TION	Drill Footage	Drill	E	88	185	
OFF WALL EXCAVA		Excavation	Method	DHD130A	XL-24	
CUT-O	Taurioment	Ric	?*	N	-	
		Drilling	Date	04/13/94	06/24/94	

Total Drill Time = Average Penetration Rate =

5.83 Hours 31.73 Feet / Hour

Total Redrill Time = Average Penetration Rate =

2.17 Hours 45.62 Feet / Hour

Verticality Information

1.0" North X 0" East / West 23.63" 27.00" At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile #576 Area "B"

	1110	DEF WALL EXCAVA	MOIL						CUT-OFF V	VALL CONS	STRUCTION			
	2	ANDER LANGUA	Drill England		Drine Drill Time		Penetration Rate				Non-Spec.	Spec.	Theoretical	
		1	DIIII I WIANG		١,		=	1	-	1	Concrete	Concrete	Volume	Overbreak
Drilling	Big	Excavation	E C	Redrill	<u>=</u>	Hedrill		Hedrill	Concrete	arout Gride	Colician			
Date 3	, #	Method	E	E	(HRS)	(HRS)	(FI/HR)	(FI / HR)	Cate	(CU.YU.)	(CO. 10.)	CO.10.	100.10.1	
Caro														
10/30/50	_	DHD130A	8		1.65		37.58		03/26/94	8			14.5	88.1%
re los los	•													į
*01**100		DUD120A	9	8	1.85	1.32	20.54	46.97	05/12/94	ස	4.5		23.4	47.7%
\$ (2)	V	200	3											
		_	101	\$	8	533	14 17	42.92	05/26/94			23	43.2	8.7%
05/25/94	2	DHD130A	8	3	3	3								

Total Drill Time = Average Penetration Rate =

9.50 Hours 19.47 Feet / Hour

Total Redrill Time = Average Penetration Rate =

3.65 Hours 44.38 Feet / Hour

Verticality Information

1.5" North X 4.0" East 27.00" 17.67" At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile #577 Area "B"

	1	AVA TAVA I EVOAVA	TION						CUT-OFF V	VALL CONS	L CONSTRUCTION			
		JEE WALLEAUAVA	NOIL									0000	Thooppoint	
	Equipment	**	Drill Footage		Pure Drill Time		Penetration Rate				Non-spec.	obac.	i leoletica	Section 6
	1	Committee	ii-C	Redrill	#ind	Redrill	Drill	Redrill	Concrete	Grout	Concrete	Concrete	VOUTE	OVERDICELA
Dulling	5,	Mothod	Ę	Ę	HRS	(HRS)	(FT / HR)	(FT / HR)	Date	(CU.YD.)	(CU:YD.)	(CU.VD.)	(CU.YD.)	
Date	#	Meuro												
A0/90/40	0	DHD130A	87		2.42		35.95		04/08/94	52.5			20.3	158.4%
ts looks	3													11 50/
07/08/94	-	XL-24	185	87	3.88	1.87	25.26	46.52	07/11/94			0.94	43.2	4.0%

Total Drill Time = Average Penetration Rate =

1.87 Hours 46.52 Feet / Hour

6.30 Hours 29.37 Feet / Hour

Total Redrill Time = Average Penetration Rate =

Verticality Information

4.5" South X 4.25" East

26.22" At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile #578 Area "B"

		PEF WALL EXCAVA	NOIL						CUT-OFF V	VALL CONS	TRUCTION			
	o during	# FEET - 1	Drill Footage		Pure Drill Time		Penetration Rate	ife			Non-Spec.	Spec.	Theoretical	
Drilling	Rig	Œ.	E	Redrill	Drill	Redrill	Drill FT / HB)	Redrill (FT / HB)	Concrete	Grout GLI VD	Concrete (CU YD.)	Concrete (CU.YD.)	Volume (CU.YD.)	Overbreak
Date	*	Memod			CUL	2		╫		1.2.1.2.2.1				
03/16/94	-	DHD130A	8		1.67		38.92		03/16/94	8			15.2	31.8%
06/13/94	8	DHD130A	100	65	1.69	2.06	20.71	31.55	06/13/94		8		23.4	28.5%
08/01/94	-	XL-24	185	100	3.23	3.27	26.32	30.58	08/03/94			48	43.2	11.1%

Total Drill Time = Average Penetration Rate =

6.59 Hours 28.07 Feet / Hour

5.33 Hours 30.96 Feet / Hour

Total Redrill Time ≂ Average Penetration Rate =

Verticality Information

3.75" South X 9.75" East

At Full Depth = S-ARC North = S-ARC South =

26.22

Quality Coring: None.

Comments:

Primary Pile #579 Area "B"

Loo I	upment							21101100	VALL CON	NO LON			
	1151	Drill Footage		Pure Drill Time		Penetration Rate	e			Non-Spec.	Spec.	Theoretical	
iL	Excavation	Dull	Redrill	-	1		Redrill	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
Cate #	Method	<u>E</u>	(F)	(HRS)	(HRS)	(FT / HR)		Date	(CU.YD.)	(CU.YD.)	(CU.YD.)	(CU.YD.)	
	0HD1304	104		390		25.77		05/24/94	100	5.8		23.6	348.6%
		2									1	9	je u
06/30/94	1 XL-24	185	<u></u>	3.32	202	25.30	20.00	07/01/94			8	43.2	8/7:C

Total Drill Time == Average Penetration Rate ==

7.24 Hours 25.55 Feet / Hour

2.02 Hours 50.00 Feet / Hour

Verticality Information

Total Redrill Time = Average Penetration Rate =

2.5" North X 4.5" West 28.47" At Full Depth = S-ARC North = S-ARC South =

16.67"

Quality Coring: None.

Secondary Pile #580 Area "B"

	CUT-0	OFF WALL EXCAVA	ATION						CUT-OFF WAL	VALL CONS	STRUCTION			
	Fauipment	-	Drill Footage	ľ	Pure Drill Time		enetration Rate	9			Non-Spec.	Spec.	Theoretical	
Drilling	Big	Excavation	Drill	Redrill	E C	Redrill	Orill	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
Date	*	Method	(F)	Œ	(HRS)	(HRS)	(FT/HR)	(FT/HR)	Date	(CU.YD.)	(CU.YD.)	(CU.YD.)	(CU.YD.)	
10/19/93	-	XL-24	45		1.45		31.03		10/19/93		13		10.5	23.7%
04/23/94	-	DHD130A	65	45	0.67	2.42	29.85	18.60	04/25/94	8	2.1		15.2	45.6%
06/14/94	. 0	DHD130A	501	92	1.43	1.40	27.97	46.43	06/15/94		31		24.5	26.4%
08/08/94	-	XL-24	185	105	3.42	3.42	23.39	30.70	08/09/94			48	43.2	11.1%

6.97 Hours 26.54 Feet / Hour

Total Drill Time = Average Penetration Rate =

Total Redrill Time = Average Penetration Rate =

7.24 Hours 29.70 Feet / Hour

Verticality Information

1.75" South X 5.5" East 16.67" 21.76"

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile #581 Area "B"

	CUT-O	FF WALL EXCAVA	VIION						CUT-OFF V	WALL CONS	TRUCTION			
	Equipment		Drill Footage		Pure Driff Time		Penetration Rate	9			Non-Spec.	Spec.	Theoretical	
Drilling	Ë	Excavation	Drill	Redrill	Dilli O	Redrill	Drill	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
Date	*	Method	Œ	Œ	(HRS)	(HRS)	(FT / HR)	(FT/HR)	Date	(CU.YD.)	(CU:YD:)	(CU.YD.)	(CU:VD:)	
	-													
06/02/94	2	DHD130A	103		4.75		21.68		06/02/94	45	6.0		24.1	112.0%
07/06/94	+	XL-24	185	දි	4.97	2.37	16.50	43.46	07/07/94		-	8	43.2	27.3%

Total Drill Time = Average Penetration Rate =

9.72 Hours 19.03 Feet / Hour

2.37 Hours 43.46 Feet / Hour

Total Redrill Time = Average Penetration Rate = Verticality Information

5.0° South X 6.0° East 21.76° 30.02°

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None. Comments:

Secondary Pile #582

Area "B"

ם מ	THO	OFF WALL EYCAVA	TION						CUT-OFF WALI	VALL CONS	CONSTRUCTION			
		NACE LACAN					Section Des	,			Non-Char	Spac	heoretical	
	Equipment	-	Drill Footage		Pure Dull I Ime	1	energian rate				300	in the	1	A
Drilling	Sig.	Evestation	Drin	Redrill	Ē	Redrill	E	Redrill	Concrete	Grout	Concrete	Concrete	VOUTING	CVerbreak
Date C	<u>P</u> *	Method	E	E	(HRS)	(HRS)	(FT/HR)	(FT / HR)	Date	(CU.YD.)	(CU.YD.)	(CU.YD.)	(CU.YD.)	
200														
09/17/93	-	DHD130A	124		6.25		19.84		10/13/93		88		280	207.4%
								1			4	1		450 rox
10/22/93	2	240	2	124		2.25		55.11	12/10/93		0.00		D.	400.00
			į	1				A7 C+	08/46/04		, S		29.0	20.9%
06/16/94	0	DHD130A	124	6		3.		22	t (5)		3			
			į	707	8	7 00	8	75.67	A0/4F/04			47.5	43.2	10.0%
08/12/94	-	XI24	8	124	2.32	3	20.03	20.02				!		

9.17 Hours 20.17 Feet / Hour

Total Drill Time = Average Penetration Rate =

11.08 Hours 26.99 Feet / Hour

Total Redrill Time = Average Penetration Rate = Verticality Information

2.0" South X 1.5" East At Full Depth ==

30.05 26.71" S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Clam in hole approx. 54' deep. (09/17/93) 12/10/93 Piles # 582-586 were connected, so when one pile was poured they both filled with concrete.

Primary Pile #583

CUT-OFF WALL EXCAVATION CUT-OFF WALL EXCAVATION Pure Drill Time Pure Drill Time Pare traits of Equipment Pare traits of Equipment CUT-OFF WALL CONSTRUCTION Non-Spec. Spec. Theoretical volume overlage Sulpment Fig. Excavation Fig. Redrill Foolage Fig. Fig. CUT/D) COLYD)	Γ	T				_		
CUT-OFF WALL EXCAVATION Cutr-OFF WALL EXCAVATION Pure Drill Time Parefrait of Equipment Parefrait Drill Footage Pure Drill Time Parefrait of Equipment Processor (CU.YD.) CUT-OFF WALL CONSTRUCTION Processor (CU.YD.) Proces				Overbreak		22.9%	30.5%	12.3%
CUT-OFF WALL EXCAVATION Cuplement Drill Footage Pure Drill Time Panetration Rate CUT-OFF WALL CONSTRUCTION Spec. Spec. Sulpment Fig. Excavation Drill Footage Redrill Drill Time Redrill Drill Drill Drill Drill Concrete Concrete Grout Concrete Concrete 94 2 DHD130A 105 54 2.43 2.43 20.48 22.23 06/09/94 30 2 94 1 DHD130A 185 165 6.17 4.00 12.97 28.25 07/12/94 30 2			heoretical	Volume (CU.YD.)		12.6	24.5	43.2
CUT-OFF WALL EXCAVATION Equipment Drill Fig Pure Drill Time Paretration Rate Paretration Rate CUT-OFF WALL CONSTRUCTION 94 2 DHD130A 54 2.42 2.43 2.43 2.43 2.43 2.43 2.43 2.43 2.43 2.43 2.43 2.43 2.43 2.43 2.43 2.43 2.43 2.43 2.43 2.43 2.44 2.43 2.43 2.44			Spec.	Concrete (CU.YD.)				48.5
CUT-OFF WALL EXCAVATION Equipment Drill Footage Pure Drill Time Penetration Rate CUT-OFF WALL CO Squipment Excavation Drill Footage Redrill Drill MRS) (FT / HR) (FT / HR) Concrete Ground 94 2 DHD130A 105 54 2.49 2.43 20.48 22.23 06/09/94 94 1 DHD130A 185 105 6.17 4.00 12.97 26.25 07/12/94	I TO I TO	HOUSE	Non-Spec.	Concrete (CU,YD.)		15.5	2	
CUT—OFF WALL EXCAVATION Equipment Drill Footage Pure Drill Time Pare Drill Time Pare III Time Pare III Time Colspan="6">C	101400	WALL CONS		Grout (CU YD.)			8	
CUT-OFF WALL EXCAVATION Equipment Drill Footage Pure Drill Time Penetration Rate Rig Excavation Drill Redrill Drill Protestration Rate 94 2 DHD130A 54 2.42 2.231 22.31 94 2 DHD130A 105 54 2.49 2.43 20.48 94 1 DHD130A 185 105 6.17 4.00 12.97	110	CUI-011		Concrete		04/14/94		
CUT-OFF WALL EXCAVATION Equipment Drill Footage Pure Drill Time Rig Excavation Drill Redrill Drill Redrill HRS) (HRS) 94 2 DHD130A 54 2.42 2.43 2.43 94 2 DHD130A 105 54 2.49 2.43 94 1 DHD130A 185 105 6.17 4.00			te.	Redrill FT / HR			22	26.25
CUT—OFF WALL EXCAVATION Equipment Drill Footage Pure Drill Time Rig Excavation Drill Redrill Drill HRSJ (HRSJ <			Penetration Ra	Drill (FT / HR)		22.31	20.48	12.97
CUT-OFF WALL EXCAVATION Equipment Drill Footage Pure Dr Rig Excavation Drill Footage Footage 94 2 DHD130A 54 94 2 DHD130A 105 54 94 1 DHD130A 185 105				Redrill	2		2.43	4.00
CUT-OFF WALL EXCAVATION Equipment Drill Footage Rig Excavation Drill Redrill # Performance (FT) (FT) 94 2 DHD130A 54 94 2 DHD130A 105 94 1 DHD130A 165			² ure Drill Time		(Qui)	2.42	2.49	6.17
CUT-OFF WALL EXCAVATION Equipment Dill Foot Rig Excavation Drill Rig Method (FT) 94 2 DHD130A 94 1 DHD130A				Redrill			25	105
CUT-OFFV Equipment #9 94 2 94 2		NOL	Drill Footage	E		75	501	185
8 8 8		F WALL EXCAVA		Excavation	Memod	DHD130A	DHD130A	DHD130A
Area "B" Drilling Date 04/14/94 06/09/94		CUT-OF	Guioment	Rig	#	2	N	-
`	Area "B"	٢		Drilling	Date	04/14/94	06/09/94	07/11/94

Total Drill Time == Average Penetration Rate ==

11.08 Hours 16.70 Feet / Hour

6.43 Hours 24.73 Feet / Hour

Verticality Information

Average Penetration Rate =

Total Redrill Time =

2.0" South X 0" East / West At Full Depth =

26.71" 28.69" S-ARC North = S-ARC South =

Quality Coring: None.

Comments: Recovered clam (see above) on 04/16/94

Secondary Pile #584 Area "B"

	110	ACCIANAL EVOAVA	NOIL						CUT-OFF V	VALL CONS	STRUCTION			
		JET WALL EAUTY	100								Minn Chan	Cooc	Thompson	
	an in mo		Drill Footson		Pure Drill Time		Penetration Kate	ıte			NOT-Spec.	3000	HONGING	
		1	DE LINE	-		1	=	Hirton C	Constitution	ti succession	Concrate	Concrete	Volume	Overbreak
251170	50	Evention	-	Redri		Hedrill		Hedull	Concrete	TO IS	2012100	2000		1
S. MILLO	<u>.</u>	To the state of	Ę	Ę	AHDO	HRS	(FT / HR)	(FT / HR)	Date	(CU.YD.)	(CU.YD.)	(CU:VD:)	(CO.VD.)	
Date	#	Memod	(11)		2	2	30,00		00/10/01		46		10.5	705 65
00,700	•	VC IV	45		1.42		31.69		10/21/93		2		2.0	
36/12/01	_	VL-24	?			07.0	44.70	4000					12.4	
03/18/04	-	DHD130A	23	45	90.0	3.40				1	1		1	
5		-	C	63					04/05/94	8	3.5		0.51	
03/28/94	_	A STOHO	8	3					00,000		¥		10.6	10.00
40,000	•	Ancton	2	ŝ				_	\$/02/\$		2		2	
4/4/45	7	The land	5	3 1					0477/04	8			14.9	
M/26/04	_	DHD130A	8	8					10/15	3	!			
5 53/5			107	100					06/20/94		42		29.5	
06/17/94	2	DHD130A	22	\$					000000			47	43.0	
10/07/00	-	VC - IX	185	125				,	18/17/80			Ť	2.74	
\$ (2) (S)		V-12+	3	2										

2.10 Hours 25.24 Feet / Hour Total Drill Time = Average Penetration Rate =

3.48 Hours 12.93 Feet / Hour Total Redrill Time = Average Penetration Rate =

0.5" South X 2.0" East 28.69" 23.80" At Full Depth = Verticality Information

S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile #585 Area "B"

	1	CE WALL EYCAVA	NOIF						CUT-OFF W	VALL CONS	TRUCTION			
Ī		T WALL LACAV	Drill Footage		Pure Drill Time		Penetration Rate	te			Non-Spec.	Spec.	Theoretical	
Drilling	Rig	Q,		Redrill	Drill	Redrill	Drill FT / HB	Redrill (FT / HR)	Concrete	Grout (CU.YD.)	Concrete (CU.YD.)	Concrete (CU.YD.)	Volume (CU.YD.)	Overbreak
Date	*	Method		111	2011	2								
04/12/94	8	DHD130A	88		3.33		17.42		04/20/94	5	5		13.5	47.7%
06/13/94	N	XL-24	125	88	4.17	2.75	16.07	21.09	06/13/94	8	9		29.5	40.5%
07/14/94	-	DHD130A	185	125	3.97	5.53	15.11	22.60	07/15/94			55	43.2	27.3%

11.47 Hours 16.13 Feet / Hour Total Drill Time = Average Penetration Rate = 8.28 Hours 22.10 Feet / Hour Total Redrill Time = Average Penetration Rate =

Verticality Information

4.0° South X 2.5" East At Full Depth =

23.80" S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

4/20/94 grout silo auger motor broke down after placing 5 cu. yds. of grout, pile filled with 'non-spec'.

Secondary Pile #586 Area "B"

	TIV	EE WALL EYCAVA	NOIL						CUT-OFF V	VALL CONS	TRUCTION			
		ANDEL ENGLIS	Drill Footpage		Pure Drill Time		Penetration Rate	9			Non-Spec.	Spec.	Theoretical	
	Edulories		DIII I COMB		٠i٠		=======================================	Hi-P-O	Company	4	Concrete	Concrete	Volume	Overbreak
Drilling	BG	Excavation		Hedrill	5	Hedrill	5		2010100	3	2000			
Date	*	Method	٤	Œ	HRS	HRS)	(FT / HR)	FI/HB	Date	(CU.YD.)	(CU.VD.)	(CO.YO.)	(50.10.)	
Cald		7017011												
		40070110	5		1 67		28.00		12/10/93		9		11.7	242.6%
11/29/94	N	DHDISON	3		2									
								8	VO/CG/SO		35		202	19.9%
06/21/94	7	DHD130A	125	3	2.78	8	8.99	80.00	No legist		3			
						1		9	100000			ARE	440	7 694
07/27/94	2	DHD130A	185	ਨ	3.77	6.10	15.92	20.48	\$6/82/10			2	1	20.
					_									

Total Drill Time = Average Penetration Rate =

8.22 Hours 22.51 Feet / Hour

7.98 Hours 21.93 Feet / Hour

Total Redrill Time = Average Penetration Rate =

1.5" South X 5.5" West At Full Depth = S-ARC North = S-ARC South = Verticality Information

26.25° 27.36°

Quality Coring: None.

Comments:

Primary Pile #587 Area "B"

	Theoretical	Volume	(CO. TU.)	28.7 46.2%		43.2 16.9%	
	Spec	Concrete	(CU.YD.)			20.5	
TRUCTION	Non-Spec.	Concrete	(CU.VD.)	2			
WALL CONS		Grout	(CU.YD.)	9			
CUT-OFF V		Concrete	Date	06/07/94		07/19/94	
	t i	Redrill	HE)			18.92	
	enetration Rate	Drill	(FT/HB)	22.36		11.99	
		Redrill	(HRS)			6.50	1
	² ure Drill Time	Drill	(HRS)	5.50		5.17	
		_	(FI)			123	
TION	Drill Footage	Die	Œ	123		185	
FF WALL EXCAVA			Method	DHD430A		DHD130A	
CIIT-O	Fortinament	Rici	*	C	V	-	
		Drilling	Date	V0/20/30	t / 10/00	07/18/94	

Total Drill Time = Average Penetration Rate =

10.67 Hours 17.34 Feet / Hour

Total Redrill Time = Average Penetration Rate =

6.50 Hours 18.92 Feet / Hour

Verticality Information

1.0" South X 7.5" West At Full Depth = S-ARC North = S-ARC South =

27.36" 24.61"

Quality Coring: None.

Secondary Pile #588 Area "B"

			NO.						CUT-OFF V	VALL CONS	TRUCTION			
	201-0	JEE WALL EACAVE	NO				Donodention Date	2			Non-Spec.	Spec.	Theoretical	
	Fallinmen	=	Drill Footage		Pure Unii I Ime		renenalmi na					Constitution	Mohimo	Josephood
Drilling	Rig	Ğ	li-O	Redrill	Drill	Redrill		Redrill (FT / HB)	Concrete	Grout	(CU.YD.)	(CU.YD.)	(CU.YD.)	Overbied
Date	*	Method	(F.)	(1)	CHES	(SUL)	(1111)							
20145104	•	DUD130A	8		3.00		21.00		03/15/94	8			14.7	103.9%
13/13/94	-	2000	3								\$		8	27 00%
06/29/94	8	DHD130A	125	æ	3.27	2.15	18.96	28.30	06/29/94		3		7:27	80.10
	,	Andread	ď	ź.	4.27	2.40	14.05	52.08	08/22/94			47	43.2	8.8%
08/18/94		ADDI OLIO	3											

Average Penetration Rate = Total Drill Time =

10.54 Hours 17.55 Feet / Hour

Total Redrill Time = Average Penetration Rate =

Verticality Information

4.55 Hours 41.32 Feet / Hour

1.0" South X 1.0" East 24.61" 36.18" At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile #589

Area "B"

								ľ	VIT-OFF V	VALL CONS	TRUCTION			
	1	DEF WALL EXCAVE	CO									Č		
			Orill Confere		Pure Drill Time		Penetration Pate	9			Non-Spec.	2000	neoretical	
						Į				4	Character	Constitution	Vohimo	System
- Silino	0	Evenation	Drill	Redriff	20	Redrill	- E	Fed I	Concrete	505	COLCIERE	Calciere	o Contract	
Bullion	2	CACAVAIIO	<u></u> (Ę	1007	(Squy	(FT / HD)	EH/HB	Date	(CC.XD)	(CC:YD:)	(CU.YD.)	(CU.YD.)	
Date	*	Method	(FI)		(SHI)	2								
10,100	(AUD+20A	8		5 17		19.15		06/01/94	\$			23.	73.0%
56/31/54	N	ADSIDED.	D.		5									
								0,00	10,000,00			2	6 87	20.4%
A0/10/4	•	XI -24	585	8	4.37	2.72	19.68	36.40	\$/50/80			Ŋ	1	
6 000														

Total Drill Time = Average Penetration Rate =

9.54 Hours 19.39 Feet / Hour

2.72 Hours 36.40 Feet / Hour Total Redrill Time = Average Penetration Rate =

Verticality Information

6.5" North X 1.75" East 36.18" 17.59" At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 590 Area "B"

	110	CE MAIL EYCAVA	NOIL						CUT-OFF V	VALL CONS	TRUCTION			
		יור ייאבר באטמיי	Drill Footage		Pure Drill Time		Penetration Rate	ite			Non-Spec.	Spec.	Theoretical	
	בלחוום	_	District Control	Dodrill	17	Redrill	Dri.	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
Date	£ *	Mathod	<u> </u>		HRS	(HRS)	(FT/HR)	(FT / HR)	Date	(CU.YD.)	(CU.YD.)	(CU.YD.)	(CU.YD.)	
Dale	#	Menion												
03/17/94	*	DHD130A	38		2.83		22.97		03/17/94	31			15.2	104.2%
													!	
07/01/94	-	DHD130A	109	85	2.40	1.85	18.33	35.14	07/01/94		83		25.5	13.9%
												ţ	9	è
07/20/94	-	XL-24	185	109	3.65	4.18	20.82	56.08	07/21/94			c.84	43.2	14.076

Total Drill Time = Average Penetration Rate =

8.88 Hours 20.83 Feet / Hour

Total Redrill Time = Average Penetration Rate =

6.03 Hours 28.86 Feet / Hour

At Full Depth = S-ARC North = S-ARC South = Verticality Information

1" North X 0" E/W 36.18 25.24

Quality Coring: None.

Comments:

Primary Pile # 591 Area "B"

	0111	DEE WALL EXCAVA	NOIT						CUT-OFF V	WALL CONS	TRUCTION			
	- Company	III	Drill Footage		Pure Drill Time		Penetration Rate	te			Non-Spec.	Spec.	Theoretical	
Drilling	Rig	Excavation	Drill	Redrill	Orill	Redrill	Drill	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
Date	*	Method	<u> </u>	Œ	(HRS)	(HHS)	(FI / HR)	(FI / HH)	Date	(01.00)	20.10.	20,10,1	20.00	
04/26/94	-	DHD130A	88		4.50		21.78		04/26/94	90	-		22.9	35.5%
08/04/94	-	XI 24	185	86	3.55	. 2.53	24.51	38.74	08/05/94			48	43.2	11.1%
in the tree														

Total Drill Time = Average Penetration Rate =

8.05 Hours 22.98 Feet / Hour

Total Redrill Time = Average Penetration Rate =

2.53 Hours 38.74 Feet / Hour

Verticality Information

0" N/S X 1.5" East 17.59 22.57

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 592 Area "B"

	CUT-0	FF WALL EXCAVA	ATION						CUT-OFF V	VALL CONS	TRUCTION			
	- ourinment	-	Drill Footage		Pure Drill Time		Penetration Rate				Non-Spec.	Spec.	Theoretical	
Drilling	Rig	Ō.		Redrill	Drill	Redrill	Drill (FT / HB)	Redrill (FT / HR)	Concrete	Grout	Concrete (CU,YD.)	Concrete (CU.YD.)	Volume (CU.YD.)	Overbreak
Date	*	Method		(1)	215	2		┰		1.2				
03/30/94	٠	DHD130A	65			2.17	ERR		03/30/94	8			15.2	117.4%
06/23/94	2	DHD130A	90	85	1.92	1.92	18.23	33.85	06/23/94		8		23.4	37.0%
08/08/94	_	XI.24	185	100	3.67	4.08	23.16	24.51	08/09/94			64	43.2	13.4%

5.59 Hours 33.09 Feet / Hour

Total Drill Time = Average Penetration Rate =

8.17 Hours 20.20 Feet / Hour

Total Redrill Time = Average Penetration Rate =

Verticality Information

2.25" South X 6.75" East

25.24 18.09 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 593 Area "B"

		Overbreak		7 185.5%	13.4%	
	Theoretical	Volume (CI VD)	20.00	21.7	43.2	
	Spec.	Concrete	20.00		49	
TRUCTION	Non-Spec.	Concrete	20.10.)			
WALL CONS		Grout	20.10.	8		
CUT-OFF		Concrete	nalle	04/23/94	08/01/94	
	ate	Redrill	נון / וווו		39.24	
	Penetration Rate		(HL/IH)	23.25	24.21	
		Redrill	2		2.37	
	Pure Drill Time	Drill	(PHS)	4.00	3.80	
		Redrill	E)		88	
ATION	Drill Footage	Orill	Ē	88	185	
FF WALL EXCAVA	-	Ð,	Method	DHD130A	XL-24	
CUT-C	Equipment	Rig	*	-	2	
		Drilling	Date	04/23/94	07/29/94	

Total Drill Time = Average Penetration Pate =

7.80 Hours 23.72 Feet / Hour

Total Redrill Time = Average Penetration Rate =

2.37 Hours 39.24 Feet / Hour

At Full Depth = S-ARC North = S-ARC South = Verticality Information

6.5" South X 1" West 22.57

32.74

Quality Coring: None.

Secondary Pile # 594 Area "B"

	CIIT-O	IFF WALL EXCAVA	TION						CUT-OFF V	VALL CONS	TRUCTION			
	Forting	-	Drill Footage		Pure Drill Time		Penetration Rate	ıte			Non-Spec.	Spec.	Theoretical	
Drilling	Rig	D.		Redrill	Dall	Redriff	Orill (FT / HB)	Redrill (FT / HR)	Concrete	Grout (CU YD)	Concrete (CU.YD.)	Concrete (CU.YD.)	Volume (CU.YD.)	Overbreak
Date	*	Merriod			2	200								
04/04/94	8	DHD130A	99		2.25		28.89		04/04/94	27.5			15.2	81.2%
06/13/04		DHD130A	100	88	1.03	1.59	33.98	40.88	06/14/94		88		23.4	19.9%
00/45/04		DHD130A	185	100	5.7	6.22	16.41	16.08	08/16/94			47.5	43.2	10.0%
100	•	4												

Total Drill Time = Average Penetration Rate =

8.46 Hours 21.87 Feet / Hour

7.81 Hours 21.13 Feet / Hour

Verticality Information

Total Redrill Time = Average Penetration Rate =

1.75" South X 1.5" East 18.09 25.08

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 595

Area "B"

		Cverbiean		114.1%	44 40%	2	
	Theoretical	Noting	CO.1D.)	24.8	42.0	43.6	
	Spec.	Concrete	(CO.YD.)		9	\$	
TRUCTION	Non-Spec.	Concrete	(CU.YD.)	င			
WALL CONS		Grout	(CU.YU.)	S			
CUT-OFF V		Concrete	Date	05/23/94		07/27/94	
	te	Redrill	(FT / HR)			25.85	-
	Penetration Rate	Drill	(FH/HR)	20.87		12.64	
		Redrill	(SHE)			4.10	
	Pure Drill Time	Duil	(HRS)	5.08		6.25	
		=	Œ			106	
NOIL	Drill Footage	Drill	Ē	106		185	
FF WALL EXCAVA		Excavation	Method	DHD130A		XL-24	
CUT-O	Equipment	Rig	*	8		8	
		Drilling	Date	05/23/94		07/26/94	

Total Drill Time = Average Penetration Rate =

11.33 Hours 16.33 Feet / Hour

4.10 Hours 25.85 Feet / Hour Total Redrill Time = Average Penetration Rate =

Verticality Information

2.51" South X 3" West 32.74 At Full Depth = S-ARC North = S-ARC South =

29.72

Quality Coring: None.

Secondary Pile # 596 Area "B"

	TIV	EE WALLEYCAVA	NOIT						CUT-OFF V	VALL CONS	TRUCTION			
	Comming	THE COURT	Drill Footage		Pure Drill Time		Penetration Rate	te			Non-Spec.	Spec.	Theoretical	
Drilling	Rig	ā.	E C	Redrill		Redrill	Drill (FT / HR)	Redrill (FT / HR)	Concrete	Grout (CU.YD.)	Concrete (CU,YD.)	Concrete (CU.YD.)	Volume (CU.YD.)	Overbreak
Date	lt:	Meriod					8		DA/DE/DA	8	25		15.2	48.2%
04/06/94	2	DHD130A	8		2.17		R		18/15	3	ì			
06/15/94	2	DHD130A	105	65	1.11	1.31	36.04	49.62	06/16/94			ਲ	24.5	26.4%
08/10/94	-	XL-24	185	105	4.10	3.98	19.51	26.38	08/11/94			47	43.2	8.8%

7.38 Hours 25.07 Feet / Hour

Total Drill Time = Average Penetration Rate =

5.29 Hours 32.14 Feet / Hour

Total Redrill Time = Average Penetration Rate =

Verticality Information

1" North X 4.5" East 25.08 22.58

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 597 Area "B"

	0117	EF WALL EXCAVA	ATION						CUT-OFF W	VALL CONS	TRUCTION			
	Fouriers	1	Drill Footage		Oure Drill Time		Penetration Rate				Non-Spec.	Spec.	Theoretical	
Drilling	Rig	Excavation	Drill	_	Orill	Redrill	Drill	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
Date	#	Method	Œ	(FI)	(HRS)	HES	(FI / HH)	HH/IL	Calle	20.00	20.00	20.10.	20.00	
06/09/94	2	DHD130A	र्क		3.58		29.33		06/09/94	26		18	24.5	177.3%
7704104	T	X - 24	185	505	3.47	3.53	23.05	29.75	07/22/94			25	43.2	15.7%
10/10/10	-	AL 54												

Total Drill Time = Average Penetration Rate =

7.05 Hours 26.24 Feet / Hour

Total Redrill Time = Average Penetration Rate =

3.53 Hours 29.75 Feet / Hour

Verticality Information

1.75" South X 4" East

34.09

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 598 Area "B"

		EE WALL EXCAVA	NOIT						CUT-OFF V	VALL CONS	TRUCTION			
		* WALL LACAN	Drill Footage		Pure Drill Time		Penetration Rate	te			Non-Spec.	Spec.	Theoretical	
Drilling	Rig	a)	Ē.	Redrill		Redrill	Drill (FT / HR)	Redrill (FT / HR)	Concrete	Grout (CU YD.)	Concrete (CU,YD.)	Concrete (CU.YD.)	Volume (CU.YD.)	Overbreak
Date	*	Method		(11)	2	2	/ / / / / / / / / / / / / / / / / / / /							
03/30/94	-	DHD130A	æ		2.00		31.50		03/30/94	83	6		14.7	76.7%
06/17/94	8	DHD130A	105	æ	1.33	2.25	31.58	28.00	06/20/94		ਲ		24.5	38.7%
08/04/94	-	DHD130A	185	105	6.83	5.00	11.71	21.00	08/04/94			47	43.2	8.8%

Total Drill Time = Average Penetration Rate =

10.16 Hours 18.21 Feet / Hour

7.25 Hours 23.17 Feet / Hour

Total Redrill Time = Average Penetration Rate =

Verticality Information

4" North X 5.5" East 22.58 15.51 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile # 599

Area "B"

		¥		163.5%	11.1%	
		Overbreak				
	Theoretical	Volume	(CO.YD.)	24.3	43.2	
	Spec.	Concrete	(CU.YD.)		48	
CONSTRUCTION	Non-Spec.	Concrete	(CU.YD.)	G		
M		Grout	(CU.YD.)	18		
CUT-OFF V		Concrete	Date	06/03/94	07/08/94	
	ite	Redrill	(FT/HR)		39.69	
	Penetration Rate	Drill	(FT / HR)	32.81	20.88	
		Redrill	(HRS)		2.62	
	Pure Drill Time	.1	(HRS)	3.17	3.88	
		Redrill	(FI)	i	104	
NOIT	Drill Footage	Drill	(FI	401	185	
CE WALL EYCAVA	١.	Excavation	Method	DHD130A	XL-24	
TIL		Ria	?*	8	-	
		Drilling	Date	06/03/94	07/06/94	

Total Drill Time = Average Penetration Rate =

7.05 Hours 26.24 Feet / Hour

Total Redrill Time = Average Penetration Rate =

2.62 Hours 39.69 Feet / Hour

Verticality Information

2" South X 0" E/W 34.09 At Full Depth = S-ARC North = S-ARC South =

19.54

Quality Coring: None.

Secondary Pile #600 Area "B"

	CITIO	FE WALL EYCAVA	NOIL					۱	CUT-OFF V	VALL CONS	TRUCTION			
	100	TI WALL LAUNG			13		Janahantian Day	9			Non-Spec	Soec.	Theoretical	
	Formoment	-	Drill Footage		Fure Drill I me		refletiation nate				indi chari		14-1	
Drilling	, E	Fxcavation	Duil	Redrill	Drill	Redrill	ii.	Redrill	Concrete	Grout	Concrete	Concrete	Volume	CVerbreak
Cate	*	Method	E	Œ	(HRS)	(HRS)	(FT/HR)	II.	Date	(CU:YD:)	(CU.YD.)	(CU.YD.)	(CU.YU.)	
2000														
03/25/94	+	DHD130A	86		2.08		27.88		03/26/94	8			13.5	47.7%
					(i i			100000		30.5		24.5	24 4%
06/22/94	0	DHD130A	105	28	203	8.	CL 23.	34.42	\$ 17/00		3		2	
		1000	70,	100	8	87.9	10 10	16.20	08/18/94			47	43.2	8.8%
08/17/94	-	PUSTUHU	8	3	3	3	į							
			4											

Total Drill Time = Average Penetration Rate =

10.71 Hours 17.27 Feet / Hour

Total Redrill Time = Average Penetration Rate =

8.03 Hours 20.30 Feet / Hour

At Full Depth = S-ARC North = S-ARC South = Verticality Information

6.5" South X 1.5" East 19.54" 21.32"

Quality Coring: None.

Comments:

Primary Pile #601 Area "B"

		Volume Overbreak (CU.YD.)		24.5 177.3%	43.2 11.1%	
	Spec.	Concrete (CU.YD.)			48	
STRUCTION	Non-Spec.	Concrete (CU.YD.)		3.0		
VALL CONS		Grout (CU.YD.)		ß		
CUT-OFF V		Concrete		05/20/94	06/30/94	
	8	Redrill (FT / HR)			42.00	
	enetration Rate	Drill PT / HB		16.80	22.35	
		Redrill	2		2.50	
	Pure Drill Time		CLU	6.25	3.58	
		Redrill			105	
NOIL	Drill Footage	lling (Ē	105	185	
E WALL EXCAVA	The state of the s	Excavation	Method	DHD130A	XL-24	
011		Rig	#	2	8	
		Drilling	Date	05/20/94	06/29/94	

9.83 Hours 18.82 Feet / Hour

Total Drill Time = Average Penetration Rate =

2.50 Hours 42.00 Feet / Hour

Verticality Information

Total Redrill Time = Average Penetration Rate =

10" South X 0" East / West 21.32" 33.70"

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile #602

Area "B"

Ľ		CE WALL EYCAVA	NOIT						CUT-OFF WALL CONSTRUCTION	VALL CONS	TRUCTION		The state of the s	
		WALL LACAN	Daill Ecopose		Prire Orill Time		Penetration Rate	i e			Non-Spec.	Spec.	Theoretical	
	THEMOTION		DIN LONGING		2						-	Connection	Vohimo	Amarhand
Drilling	Rig	Excavation	IIIA	Redrill		Redrill		Hedri (Concrete	erour Grind	Concrete	CONTRACTOR		ARDIGUENO.
Date	*	Method	(FI)	E	(HRS)	(HHS)	(FI / HH)	(FI / HH)	Date	(CO.TD.)	(20,10.)	20.00	100.100	
					Ç		25.65		A9/23/94	8			14.9	33.8%
03/22/94	-	DHD130A	\$		3		3			}				
1012000	c	DUD1200	105	25	1.97	1.70	20.81	37.65	06/27/94		8		24.5	22.4%
\$ 12/00	N	200	3	3										
20,000	•	אטראינות	185	50	5.33	6.08	15.01	17.27	08/22/94			47	43.2	8.8%
45/53/80	-	2000	3	3	}									

9.80 Hours 18.88 Feet / Hour

Total Drill Time = Average Penetration Rate =

Total Redrill Time = Average Penetration Rate =

7.78 Hours 21.72 Feet / Hour

Verticality Information

5" South X 2.0" East 33.70" 30.14" At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile #603

Area "B"

	1	FE WALL EYEAVA	NOIT						CUT-OFF V	WALL CONS	TRUCTION			
	2 - 123	JET WALL EACAVA	Dail Ecopage		Pure Drill Time		Penetration Rate	ife			Non-Spec.	Spec.	Theoretical	
	Edulomen		DIIII COMBINE						•			-	Web im	Sections
Drilling	i.	Excavation	Diil	Redrill	ii.O	Redrill		Redrill	Concrete	Grout	Concrete	Concrete	Nomine	Overbieds
2	2 *	Method	Ę	Œ	(FRS)	(HRS)	(FT / HR)	(FT / HR)	Date	(CO.XD.)	(CU:YD:)	(CU.YD.)	(CU.YU.)	
Caro		2010												
	Ì	104204	1		0.50		14.00			Hole Open			1.6	
\$ (1/3)	_	ANSI GLIG	-		3		}							
					000	30.0	20.04	8	05/11/04	8	4.5		22.2	190.7%
05/09/94	_	DHD130A	S		97.5°	0.63	\$		3	}	?			
					-	-	1		10101100			57.5	43.2	33.1%
07/12/94	-	XL-24	185	8	12.00	5.30	36.7	17.92	あっこつ			9	1	

Total Drill Time = Average Penetration Rate =

15.58 Hours 12.32 Feet / Hour

Total Redrill Time = Average Penetration Rate =

5.55 Hours 17.12 Feet / Hour

Verticality Information

2.0° South X 2.0° East 30.14" 28.86"

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile #604 Area "B"

E	WALL EXCAVA	MOIL						CUT-OFF V	VALL CONS	TRUCTION			
	lipment	Drill Footage		Pure Drill Time		Penetration Rate				Non-Spec.	Spec.	Theoretical	
1	Excavation		Redrill	PHESS	Redrill (HRS)	Drill (FT / HR)	Redrill (FT / HR)	Concrete	Grout (CU.YD.)	Concrete (CU.YD.)	Concrete (CU.YD.)	Volume (CU.YD.)	Overbreak
-	DHD130A	88		2.75		22.55		03/22/94	21			14.5	45.0%
8	DHD130A	100	8	1.37	1.97	27.74	31.47	06/24/94		27		23.4	15.6%
2	XL-24	185	100	4.53	3.42	18.76	29.24	08/01/94			22	43.2	15.7%

8.65 Hours 21.39 Feet / Hour

Total Drill Time = Average Penetration Rate =

5.39 Hours 30.06 Feet / Hour

Total Redrill Time = Average Penetration Rate =

Verticality Information

1.0" North X 6.0" West

28.86° 26.87" At Full Depth =

S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile #605 Area "B"

		Nerbreak		341.8%	13.4%	
	_	Volume (CU.YD.)		22.2	43.2	
	Spec.	Concrete (CU.YD.)			49	
TRUCTION	Non-Spec.	Concrete (CU,YD.)		8.0		
WALL CONS		Grout (CU YD.)		6		
CUT-OFF \		Concrete		04/26/94	07/15/94	
	te l	Redrill (FT / HR)			33.57	
	Penetration Rate	Drill FT / HB)		25.89	18.00	
		Redrill	2		2.83	
	Pure Drill Time	Delli	2	3.67	5.00	
		Redrill			86	
NOIT	Drill Footage	E 6	(1)	95	185	
F WALL EXCAVE		Excavation	Medica	DHD130A	XL-24	
0-11-0	-dilipment	Rig	#	-	-	
		Drilling	Cate	04/25/94	07/15/94	

Total Drill Time = Average Penetration Rate =

8.67 Hours 21.34 Feet / Hour

Total Redrill Time = Average Penetration Rate =

2.83 Hours 33.57 Feet / Hour

Verticality Information

1.5" North X 1.5" West 26.87" At Full Depth = S-ARC North = S-ARC South =

15.05"

Quality Coring: None.

Secondary Pile #606 Area "B"

		FF WALL EXCAV	ATION						CUT-OFF \	WALL CONS	TRUCTION			
	-dismen	1	Drill Footage		Pure Drill Time		Penetration Rate	ite			Non-Spec.	Spec.	Theoretical	
Drilling	Rig	Q,	E C	Redrill	Drill	Redrill	Drill GT / HB)	Redrill (FT / HB)	Concrete	Grout	Concrete	Concrete (CU YD.)	Volume (CU.YD.)	Overbreak
Date	*	Memod		(11)	CULI	2	6111	,, /		121.22				
03/15/94	-	DHD130A	18		2.67		24.34		03/15/94	47			15.2	209.6%
06/09/94	-8	DHD130A		65	1.12	1.88	31.25	34.57	06/10/94		83		23.4	24.2%
08/02/94	-	XL-24	185	100	5.25	3.50	16.19	28.57	08/03/94			47.5	43.2	10.0%

9.04 Hours 20.46 Feet / Hour

Total Drill Time = Average Penetration Rate =

5.38 Hours 30.67 Feet / Hour

Total Redrill Time = Average Penetration Rate =

Verticality Information

5.0" South X 2.0" East

15.05" 22.97" At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments: Connected with pile 620

Primary Pile #607 Area "B"

Total Drill Time = Average Penetration Rate =

6.91 Hours 26.77 Feet / Hour

2.17 Hours 44.70 Feet / Hour Total Redrill Time = Average Penetration Rate =

Verticality Information

7.5" South X 3.25" East At Full Depth = S-ARC North = S-ARC South =

22.97" 32.02"

Quality Coring: None.

Secondary Pile #608 Area "B"

			I TO						CUT-OFF V	VALL CONS	TRUCTION			
		DEF WALL EXCAV	ACC								Mon Coop	Char	Theoretical	
			Drill Evotada		Pure Drill Time		Penetration Rate	0			NOT-Spec.	doc.	The state of the s	Jana America
			Diamon III					Dodail	Constrate	-	Concrete	Concrete	Noume	Septiment Common
Drilling	.g	Excavation	Drill	Redrill		Hedrill			Conclete		CKID	(CU.YD.)	(CU.YD.)	
200	*	Method	<u>[</u>	Ē	(HRS)	HKS)	(FI / HR)	ובו / וווו	Dale	20.00	120.00			
Calle		POLITICAL DE LA COLONIA DE LA												
					-		10 72		11/02/93		<u>\$</u>		23.8	416.4%
11/01/93	2	DHD130A	\$		5.10		2.6		2					
									*0/00/10			48	43.2	11.1%
07/27/94	0	DHD130A	185	102	2.77	5.40	14.38	18.00	\$ 192/10			2		
200														

Total Drill Time =

10.94 Hours 16.91 Feet / Hour

Average Penetration Rate =

5.40 Hours 18.89 Feet / Hour

Verticality Information

Total Redrill Time = Average Penetration Rate =

3.5" South X 3.75" East 32.02" 20.96"

At Full Depth =

S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile #609

Area "B"

•			I VOIL						CUT-OFF WALL CONSTRUCTION	VALL CONS	TRUCTION			
		FF WALL EXCAVA	202								Man Care	Chan	Theoretical	
			Drill Footsche		Pure Drill Time		Penetration Rate				NOTI - Spec.	200	Mohimo	Oushrook
Drilling	Rio	Excavation	Drill	Redrill	Drill	Redrill	Drill	Redrill	Concrete	Gracet	Concrete	Concrete	(CI VD.)	V CAROLINA
Date	n #	Method	(E)	<u>E</u>	(HRS)	(HRS)	(FT/HR)	(FI / HH)	Date	20.10.	20.10.1			
70,000	•	DH0130A	8		4.45		21.49		04/23/94	83	20		22.2	53.3%
14/23/34 14/23/34	-		3									ŭ	43.2	18.1%
07/21/94	-	XL-24	185	88	5.33	1.17	16.89	84.20	01/22/94			5		

Total Drill Time = Average Penetration Rate =

9.75 Hours 18.97 Feet / Hour

1.17 Hours 81.20 Feet / Hour

Total Redrill Time = Average Penetration Rate = Verticality Information

7.0" South X 7.5" East

20.96" At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile #610 Area "B"

	CIIT-O	-OFF WALL EXCAVA	MOIT						CUT-OFF	CUT-OFF WALL CONSTRUCTION	TRUCTION			
	Fortiment	=	Drill Footage		Pure Drill Time		Penetration Rate	9			Non-Spec.	Spec.	Theoretical	
Drilling	Rig	Ä.		Redrill	Drill	Redrill	Drill Drill	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
Date	*	Method	(F)	<u>-</u>	(242)	CALL	ונון / וווו	uu / uu	Care	H	20.10.	20.00	7.2.	
10/19/93	-	XI -24	185		00.6		20.56		10/19/33			22	43.2	82.9%
20 (0.16)												S	* 00	9
11/30/93	-	XL-24	29						12/04/53			8	4.00	8 7
12/03/93	-	XL-24	130											

9.00 Hours 20.56 Feet / Hour

Total Drill Time = Average Penetration Rate =

None

Total Redrill Time = Average Penetration Rate =

0" North / South X 0" East / West Verticality Information

S-ARC North = S-ARC South = At Full Depth =

33.75" No Overtap at Full Depth, Overtap Achieved with Conforming Pile.

Quality Coring: None.

11/39/93 set up on wrong pile and continued on 12–3–93 until mistake was discovered. No redrift payment allowed.

No payment for additional 58 cy of concrete. Comments:

Primary Pile #611

Area "B"

		788 X		22.7%
		Overbreak		
	Theoretical	Volume	(CU:YD:)	43.2
	Spec.	Concrete	(CU.YD.)	SS.
TRUCTION	Non-Spec.	Concrete	(CU.YD.)	
WALL CONSTR		Grout	(CU.YD.)	
CUT-OFF		Concrete	Date	01/28/94
	. 1	Redrill	(FT / HR)	
	Penetration Rate		(FT/HR)	28.46
		Redrill	(HRS)	
	Pure Drill Time	Dril	(HRS)	6.50
		Redrill	E	
VOIT	Drill Footage		E	185
FF WALL EXCAVA	1	Excavation	Method	XL-24
CUT-0	quipment	Rici	" *	2
		Drilling	ate C	01/27/94

Average Penetration Rate = Total Drill Time =

6.50 Hours 28.46 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

11" South X 7.0" West At Full Depth =

No Overtap at Full Depth, Overtap Achieved with Conforming Pile. 35.59" S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile #612 Area "B"

	TIL	CEE WALL EYCAVAT	MOIT						CUT-OFF WALI	VALL CONSTRU	TRUCTION			
		יייייייייייייייייייייייייייייייייייייי	Drill Footage		ure Drill Time		enetration Rate	9			Non-Spec.	Spec.	Theoretical	
Drilling	Hig.	Excavation	III-Q	Redrill	- 20	Redrill (HRS)	Drill (FT / HR)	Redrill (FT / HR)	Concrete Date	Grout (CU.YD.)	Concrete (CU.YD.)	Concrete (CU.YD.)	Volume (CU.YD.)	Overbreak
09/17/93	-	DHD130A	185		15.08		12.27		09/18/93		146		43.2	238.0%
10/20/93	-	XL-24	88	88	y de la company	3.08		26.62	10/20/93		6		19.1	-0.8%
12/09/93	0	DHD130A	8	88		3.58		22.35	12/13/93		45.5		18.7	143.6%
01/22/94	N	DHD130A	185	185		11.92		15.52	01/24/94			53	43.2	22.7%

15.08 Hours 12.27 Feet / Hour Total Drill Time = Average Penetration Rate =

18.58 Hours 18.68 Feet / Hour Total Redrill Time = Average Penetration Rate =

Verticality Information

2.5" South X 0" East / West 35.59" 33.07" At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments: Hole collapsed to 80' after drilling to 185' initially; cavities in the lower part of hole.

Primary Pile #613

Area "B"

		Overbreak	8.8%	
	Theoretical	Volume (CU.YD.)		
	Spec.	Concrete (CU.YD.)	47	
WALL CONSTRUCTION	Non-Spec.	Concrete (CU,YD.)		
WALL CONS		Grout (CU,YD.)		
CUT-OFF		Concrete	02/01/94	
	te	Redrill (FT / HR)		
	Penetration Rate	Drill (FT / HR)	20.37	
		Redrill		
	Pure Drill Time	Drill	9.08	
		Redrill		
ATION	Drill Footage	<u> </u>	185	
FF WALL EXCAVA		ũ,	DHD130A	
cut-o	Follomen	Rig	2	
-		Drilling	01/31/94	

9.09 Hours 20.37 Feet / Hour Total Drill Time ≂ Average Penetration Rate =

None Total Redrill Time =

Average Penetration Rate = Verticality Information

2.5" North X 2.5" East 33.07" 22.08" At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile #614

Area "B"

CUI- Equipm Drilling Rid	nent	MICH						5	していいい				
Drilling Ria	nent									Mon-Spor	Snec	Theoretical	
Drilling	IGII.	Drill Footbade		Pure Drill Time		Penetration Hate	e e			NOTIFICATION.		1	
Drilling	Lynnetion	Samo IIIO				-	Dodeill	Constitution	1	Concrete	Concrete	Volume	
			Redrill	5		5		2000	3			(8/13)	
6	7 - 4 - 4	Ę.	Ę	HRS	(HRS)		(FT/HR)	Date	CC.VD.)	(CU.YU.)	(70.10.)	(50.10.)	
Date #	Metrod			2									
										077		07.0	200 604
00/26/00	1 DHD130A	117		00.6		13.00		09/22/93		2		5.73	9050/9
08/53/80													
		-	,	177	0 50	0 48	13.64	01/14/94			53.5	43.2	23.9%
01/13/94	2 DHD130A	185		7:,	0.0								

16.17 Hours 11.44 Feet / Hour

Total Drill Time = Average Penetration Rate =

Total Redrill Time = Average Penetration Rate =

8.58 Hours 13.64 Feet / Hour

Verticality Information

0.5" South X 0.75" East

At Full Depth = S-ARC North = S-ARC South =

22.08" 28.53"

Quality Coring: None.

Comments: Encountered clay to approx. 90', then went into rock

Primary Pile #615

Area "B"

8.17 Hours 22.64 Feet / Hour

Total Drill Time = Average Penetration Rate =

Total Redrill Time = Average Penetration Rate ==

None

Verticality Information

0.79" North X 0" East / West 28.53" At Full Depth =

S-ARC North = S-ARC South =

15.87"

Quality Coring: None.

Comments: Hole collapsed to 155', had to clean, probable reason for extra concrete.

Secondary Pile #616 Area "B"

	CIT-C	JEF WALL EXCAVA	VIION						CUT-OFF V	WALL CONS	TRUCTION			
	Follinmon	1	Drill Footage		Oure Drill Time		Penetration Rate	te			Non-Spec.	Spec.	Theoretical	
Drilling	, E	Excavation	Drill	Redrill	Duil	Redrill	Drill	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
Date	*	Method	Œ	Œ	(HRS)	(HRS)	(FT / HR)	(FT/HR)	Date	(CU.YD.)	(CU.YD.)	(CU:YD:)	(CU.VD.)	
10/29/93	2	DHD130A	110		5.92		18.58		10/29/93		61.5		25.7	139.4%
							:		,			2	2	40
01/25/94	2	DHD130A	185	110	5.58	6.58	13.44	16.72	01/26/94				43.2	<u>8</u>

Total Drill Time =

11.50 Hours 16.09 Feet / Hour

Average Penetration Rate =

6.58 Hours 16.72 Feet / Hour

Total Redrill Time = Average Penetration Rate =

At Full Depth = Verticality Information

4.8" South X 6.8" West 15.87" 30.56"

S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile #617

Area "B"

		Overbreak		75.8%	8	24.3%	
	Theoretical	Volume	(CO. VD.)	22.2		43.4	
	Spec.	Concrete	(CO, VD.)		1	ኧ	
TRUCTION	Non-Spec.	Concrete	(CU.YD.)	8			
WALL CONST		Grout	(CU.YD.)				
CUT-OFF \		Concrete	Date	11/08/93		01/20/94	
		Redrill	(FF/HR)			42.22	
	Penetration Rate	Drill	(FT/HB)	19.67		21.41	
		Redrill	(HRS)			2.25	
	Pure Drill Time	Drill	HRS)	4.83		4.25	
		Redrill	9			88	
TION	Drill Footage	Dill	E	88		186	
FF WALL EXCAVA		Excavation	Method	DHD130A		XL-24	
CUT-0	Fourieren	Rig	*	-		0	
		Drilling	Date	11/08/93	2001	01/20/94	

Total Drill Time = Average Penetration Rate ≈

9.08 Hours 20.48 Feet / Hour

Total Redrill Time = Average Penetration Rate =

2.25 Hours 42.22 Feet / Hour

Verticality Information

1.0" South X 0.5" West 30.56" At Full Depth = S-ARC North = S-ARC South =

18.62"

Quality Coring: None.

Secondary Pile #618 Area "B"

		AUTONO INTERNATION	I ACIE					ř	CUT-OFF V	VALL CONS	TRUCTION			
		HE WALL EXCAVE	NO.								Mon-Spor	Spec	Theoretical	
	2000		Drill Footage		Pure Drift Time		Penetration Hate				2000	1	Web in	American
	Edminion	11	- II. G	177-0	1_	Dodnill	100	Redrift	Concrete	Grout	Concrete	Concrete	Volume	CVEDICER
Drilling	Rig	Excavation	5		= £	1000	(dH/ LJ/	FT / HB	Date	(CU.YD.)	(CU:YD.)	(CU.YD.)	(CU.YD.)	
Date	*	Method	(FT)	(F)	(ZHZ)	2	(111)							
											•		2	101 50/
40/20/02	78	DHD1304	87		4.50		19.33		11/01/93		\$		SU.3	121.3%
ne incin													-	1
			•	70	133	4.28	18.85	20.33	06/16/94				7.63	87.78
06/15/94	110	PHOTOGRA	2	ò	<u>i</u>	2								
								90 90	10/40/07			47.5	43.2	10.0%
08/00/04	185	XI 24	2 8	110	3.67	3.85	\$. \$		1000					
		!												

Total Drill Time = Average Penetration Rate =

9.39 Hours 19.70 Feet / Hour

8.20 Hours 24.02 Feet / Hour

Total Redrill Time = Average Penetration Rate =

Verticality Information

5.5' South X 6.0' West 18.62' 37.84"

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile #619

Area "B"

			I CIT						CUT-OFF V	VALL CONS	TRUCTION			
	55	JEE WALL EXCAVE	NON								Man Cana	Spac	Theoretical	
	Service Services	*	Drill Footage		Pure Drill Time		Penetration Rate	- 1			Non-spec.	3	W. F. Inc.	American C
			2000		= 0	Dodeill	2	Bodrill	Concrete	Grout	Concrete	Concrete	Volume	CVEIDIBER
Drilling	Rid	Excavation	5	Hedri	5	Heali			2000			(CL AD)	(CU.YD.)	
Doto	*	Method	Œ	Œ	HRS)	E S	(FI / HH)	TI / HR)	Date	20.10.	20:00	1001		
Date														
							6		M/28/04	8	9		25.5	41.4%
04/27/94	-	DHD130A	100		4.78		22.82		to invite	3	•			
												20.0	49.0	16 004
	•	5	405	2	3.85	2.57	19.74	4241	07/01/94			0.00	49.5	0.00
6/23/84	7	AL-24	3	3		i								

Total Drill Time = Average Penetration Rate =

8.63 Hours 21.44 Feet / Hour

2.57 Hours 42.41 Feet / Hour Total Redrill Time = Average Penetration Rate =

Verticality Information

3.5" North X 7.25" West At Full Depth = S-ARC North = S-ARC South =

37.84" 11.60"

Quality Coring: None.

Secondary Pile #620

Area "B"

	O-TI-O	FF WALL EXCAVA	NOIL						CUT-OFF WALL (VALL CONS	TRUCTION			
			Drill Footage		ure Drill Time		Penetration Rate	te			Non-Spec.	Spec.	Theoretical	
Drilling	Rig	Ţ,	ling (Redrill		Redrill	Drill FT / HB)	Redrill (FT / HR)	Concrete	Grout (CU.YD.)	Concrete (CU.YD.)	Concrete (CU.YD.)	(CU.YD.)	Overbreak
Date	*	Method	Ē		CHINO	2	111111111111111111111111111111111111111							
11/04/93	-	240	æ		2.50		25.20		11/04/93		37.5		14.7	154.9%
03/15/94	-	DHD30	æ	8	0.02	3.33	100.00	18.92	03/15/94	ĸ			15.2	64.7%
06/13/94	8	DHD30	110	65	2.37	1.92	18.99	33.85	06/14/94		8		25.7	16.8%
08/15/94	-	DHD30	185	110	5.88	6.78	12.76	16.22	08/18/94			47	43.2	8.8%

Total Drill Time = Average Penetration Rate =

10.77 Hours 17.18 Feet / Hour

12.03 Hours 19.78 Feet / Hour

Total Redrill Time = Average Penetration Rate =

Verticality Information

4.0" South X 1.5" West 11.60" At Full Depth = S-ARC North = S-ARC South =

31.26"

Quality Coring: None.

Comments: Connected with pile 606

Primary Pile #621 Area "B"

	CITIO	AFF WALL EXCAVA	NOIL						COLOUR WALL CONSTRUCTION	VALL COLES	20000			
1	2	A STATE OF THE STA			June Drift Time		Donotration Bate				Non-Spec.	Spec.	Theoretical	
	Eduroment	-	Uniii Footage				a longing in			1	-	Compresso	Volume	Overhreak
D	Rig	ă	Orill	Redrill		Redrill		Hedrill T	Concrete		COLUM	(CU YD)	(CU.YD.)	
Date	#	Method	(FI)	Ē	(AHZ)	SHE	נבו / נועו	(00/15)	Daio	7.00				
3/25/94	-	DHD30	96		5.75		16.70		03/25/94	40			224	78.4%
7/08/94	-	XL-24	185	8	4.07	277	21.87	34.66	07/08/94			48.5	43.2	12.3%

Total Drill Time == Average Penetration Rate ==

9.82 Hours 18.84 Feet / Hour

Total Redrill Time = Average Penetration Rate ==

2.77 Hours 34.66 Feet / Hour

0" North / South X 3.5" East At Full Depth = S-ARC North = S-ARC South = Verticality Information

31.26"

Quality Coring: None.

Secondary Pile #622 Area "B"

_	1	TECHNALL EVENING	MOIT						CUT-OFF M	VALL CONS	TRUCTION			
	2	ILL WALL EACAV	1015								Mon-Coor	Snor	Theoretical	
	Fourinment	4	Drill Footage		Pure Drill Time		Penetration Hate				NOIL Spec.	2000	Mat.	James A.
Drilling	Rig	Ĕ		Redrill	Drill	Redrill		Redrill	Concrete	GUYD)	(CU.YD.)	(CU.YD.)	(CU.YD.)	Overblean
Date	#	Method	(1)	=	CUL	2	1							
03/17/94	-	DHD30	65		2.33		27.90		03/17/94	8			15.2	31.8%
06/16/04	٥	DHD30	110	3	2.93	1.74	15.36	37.36	06/11/94		88		25.7	9.0%
00/14/00	· •	OHD O	185	110	5.50	4.42	13.64	24.89	08/12/94			47	43.2	8.8%
ts/11/00		20010												

Total Drill Time =

10.76 Hours 17.19 Feet / Hour

Average Penetration Rate =

6.16 Hours 28.41 Feet / Hour

Total Redrill Time = Average Penetration Rate =

Verticality Information

4.0° South X 5.25° East 20.39° At Full Depth =

27.45" S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile #623 Area "B"

62.1% 11.1% Overbreak 25.0 43.2 Theoretical Volume (CU.YD.) 8 Spec. Concrete (CU.YD.) 5.5 Non-Spec. Concrete (CU.YD.) CUT-OFF WALL CONSTRUCTION 8 Grout (CU.YD.) 05/06/94 07/13/94 Concrete Date 34.74 Redrill (FT / HR) Drill 19.12 13.67 (FT/HR) 3.08 Redrill (HRS) Oure Drill Time Drill (HRS) 7.83 4.08 107 Redrill 0 Drill Footage Drill (FT) 185 107 CUT-OFF WALL EXCAVATION Excavation Method DHD30 XL-24 quipment Rig 07/13/94 05/06/94 Drilling Date

Total Drill Time =

11.91 Hours 15.53 Feet / Hour

Average Penetration Rate =

3.08 Hours 34.74 Feet / Hour

Verticality Information

Total Redrill Time = Average Penetration Rate =

3.5" South X 5.75" East At Full Depth =

27.45" 28.13" S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile #624 Area "B"

	O III	FE WALL EXCAVA	NOIL						CUT-OFF V	VALL CONS	TRUCTION			
		The state of the s	Drill Footage		Oure Drill Time		Penetration Rate				Non-Spec.	Spec.	Theoretical	
Drilling	Rig	Excavation	E C	Redrill	Dull Pubo	Redrill	Drill FT / HR)	Redrill (FT / HR)	Concrete	Grout (CU.YD.)	Concrete (CU.YD.)	Concrete (CU.YD.)	Volume (CU.YD.)	Overbreak
Date	*	метод	(1)		2	2								
03/19/94	-	DHD30	28		2.75		23.27		03/19/94	æ			14.9	53.9%
06/21/94	2	DHD30	110	2	3.78	1.55	12.17	41.29	06/21/94		8		25.7	24.6%
08/22/94	-	DHD30	185	110	4.95	6.30	15.15	17.46	08/23/94			47	43.2	8.8%

11.48 Hours 16.11 Feet / Hour

Total Drill Tirne = Average Penetration Rate =

7.85 Hours 22.17 Feet / Hour

Total Redrill Time = Average Penetration Rate =

At Full Depth = S-ARC North = S-ARC South = Verticality Information

2.5" South X 5.0" East 28.13" 32.99"

Quality Coring: None.

Comments:

Primary Pile #625

Area "B"

	CITTO	FF WALL EXCAVA	ATION						CUT-OFF!	WALL CONS	TRUCTION			
	Commission	+	Drill Footage		Pure Drill Time		Penetration Rate	ute			Non-Spec.	Spec.	Theoretical	
Drilling	Rig	Excavation	Drill	Redrill	E O	Redrill	Drill	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
Date	*	Method	Œ	(FI)	(HRS)	(HHS)	(FI / HH)	(FI / HR)	naie	(.07.0.)	VO.10.)	20.00	200	
05/19/94	2	DHD30	105		7.58		13.85		05/20/94	8	3.9		24.5	38.3%
07/15/04	•	XI -24	185	105	4.08	3.25	19.61	32.31	07/18/94			48	43.2	11.1%
10 61 / 10														

Total Drill Time = Average Penetration Rate =

11.66 Hours 15.87 Feet / Hour

3.25 Hours 32.31 Feet / Hour

Verticality Information

Total Redrill Time = Average Penetration Rate =

2.5" North X 2.0" East 32.99" At Full Depth = S-ARC North = S-ARC South =

26.05"

Quality Coring: None.

Secondary Pile #626 Area "B"

	O-TI-O	FF WALL FXCAVA	VIION						CUT-OFF V	VALL CONS	TRUCTION			
	Faminian		Drill Footage		Pure Drill Time		Penetration Rate	9			Non-Spec.	Spec.	Theoretical	
Drilling	Rig	Excavation	lling (Redrill	Drill	Redrill	Drill (FT / HR)	Redrill (FT / HR)	Concrete Date	Grout (CU.YD.)	Concrete (CU.YD.)	Concrete (CU.YD.)	Volume (CU.YD.)	Overbreak
Date	*	Menio			2									
03/23/94	-	DHD30	æ		2.33		27.04		03/23/94	8			14.7	35.9%
06/22/94	~	DHD30	105	æ	1.67	2.00	25.15	31.50	06/23/94		8		24.5	30.5%
08/24/94	-	онрзо	185	105	4.17	4.75	19.18	22.11	08/25/94			43.5	43.2	0.7%

Total Drill Time == Average Penetration Rate ==

8.17 Hours 22.64 Feet / Hour

Total Redrill Time = Average Penetration Rate =

6.75 Hours 24.89 Feet / Hour

Verticality Information

2.0" North X 2.0" East 26.05" 34.31" At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile #627 Area "B"

		Overbreak		116.4%	11.1%	
	Theoretical	Volume	20.00	222	43.2	
	Spec.	Concrete	20.10.		48	
NSTRUCTION	Non-Spec.	Concrete	(20.10.)	80		
ALL CO		Grout	100.00	40		
CUT-OFF W		Concrete	Date	04/25/94	07/20/94	
		Redrill	(FI / HK)		35.58	
	Penetration Rate	Drill	(FI / HR)	22.35	18.00	
		Redrill	(HHS)		2.67	
	Pure Drill Time	Drill	(HRS)	4.25	5.00	
		Redrill	(FI)		8	
MOIL	Drill Footage	Drill	Œ	95	185	
FF WALL EXCAVA	-	Excavation	Method	DHD30	XL-24	
CUT-O	-duinner	Rig	#	-	-	
	ľ	Drilling	Date	04/25/94	07/19/94	

Total Drill Time = Average Penetration Rate =

9.25 Hours 20.00 Feet / Hour

Total Redrill Time = Average Penetration Rate =

2.67 Hours 35.58 Feet / Hour

Verticality Information

8.0" North X 0" East / West 34.31" At Full Depth = S-ARC North = S-ARC South =

11.26"

Quality Coring: None.

Secondary Pile #628 Area "B"

	0111	-OFF WALL EXCAVA	TION						CUT-OFF V	VALL CONS	TRUCTION			
	Forming	-	Drill Footage		Pure Drill Time		enetration Rate	9			Non-Spec.	Spec.	Theoretical	
Drilling	Hig.	Excavation		Redrill	Drill	Redrill	Orill (FT / HR)	Redrill (FT / HR)	Concrete	Grout (CU.YD.)	Concrete (CU.YD.)	Concrete (CU.YD.)	Volume (CU.YD.)	Overbreak
Cate	#	Метгол			2									
03/21/94	-	DHD30	2		2.17		83.49		03/22/94	ଷ			9.4 9.	33.8%
06/30/94	2	DHD30	109	29	5.75	0.67	7.83	96.52	07/01/94		28.5		25.5	12.0%
96/08/09	-	XL-24	185	109	4.78	4.05	15.90	26.91	08/09/94			48.5	43.2	12.3%

Total Drill Time = Average Penetration Rate =

12.70 Hours 14.57 Feet / Hour

4.72 Hours 36.65 Feet / Hour

Total Redrill Time = Average Penetration Rate =

Verticality Information

0" North / South X 3.0" West

11.26" At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile #629 Area "B"

Ľ	0-111-0	FF WALL EXCAVA	NOIL						CUT-OFF\	WALL CONS	TRUCTION			
ľ	Junior In	4	Drill Footage		Pure Drill Time		Penetration Rate	ate			Non-Spec.	Spec.	Theoretical	
-	Dio	Evestein	III-C			Redrill	Orill	Redrill	Concrete	Grout	Concrete		Volume	Overbreak
Date		Method	<u></u>	E	(HRS)	(HRS)	(FT / HR)	(FT / HR)	Date	(CU.YD.)	(CU.YD.)	ľ	(CU:YD:)	
					6		40.70		VO/10/10/	28	C		30.5	120.9%
3/31/94	-	0H030	S		90.0		0.00		teleate	•	j			
1/22/94	-	XL-24	185	88	4.50	3.83	20.00	24.80	07/25/94			49	43.2	13.4%

Total Drill Time = Average Penetration Rate =

9.58 Hours 19.31 Feet / Hour

Total Redrill Time = Average Penetration Rate =

3.83 Hours 24.80 Feet / Hour

Verticality Information

2.5" North X 0" East / West 29.87" At Full Depth = S-ARC North = S-ARC South =

14.22"

Quality Coring: None.

Secondary Pile #630 Area "B"

	100	AVA L EVOAVA	TION.						CUT-OFF V	VALL CONS	TRUCTION			
	2-100	JEE WALL EAULIN			В						Mon-Spor	Spec	Theoretical	
	Falinmen	-	Drill Footage		Pure Drill Ime		Penetration Hate				3000		1	1
					= 0	المحور	#100	-	Concrete		Concrete	Concrete	Volume	Svergreak
Drilling	Big	Excavation	5	Hedri	5	III DOL	5		2000			9	(813)	
Date	, #	Method	Œ	Œ	(HRS)	(SEE	FF/HR)	٦	Date	H	(CU.YD.)	(70.10.)	20.10.	
Caro														
10/01/07	_	DHD130A	26		2.08		30.77		03/18/94	88			14.9	87.4%
66 63												-		
10,100	•	DHD130A	110	28	2.48	1.60	18.55	40.00	06/24/94		37.5		25.7	46.0%
16/4/2/00			?									!		
A0177/04	-	DHD1304	185	110	6.83	6.42	10.98	17.13	08/18/94			47	43.2	8.8%
6														

Total Drill Time = Average Penetration Rate =

11.39 Hours 16.24 Feet / Hour

Total Redrill Time = Average Penetration Rate =

8.02 Hours 21.70 Feet / Hour

Verticality Information

3.5" South X 8.0" East

14.22° 20.93° At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile #631 Area "B"

CUT-OFF WALL EXCAVATION CUT-OFF WALL EXCAVATION CUT-OFF WALL CONSTRUCTION Spec. Theoretical Theoretical Cut-off Wall Concrete Cut-off Cu	1 2 1	SAVA	iON Drill Footage Drill (F1) 80 110	86 ♀	Urre Drill Time Drill (HRS) 4.00 7.62	Redrill (HRS) 1.88	Penetration Ra Drill (FT / HR) 20.00 3.94	E F	Concrete Date 04/22/94 06/08/94	Grout (CU.YD.) 32 32 50	(CU,YD.)	Spec. Concrete (CU.YD.)	Theoretical Volume (CU,YD.) 18.7 25.7 25.7 43.2	Overbreak 71.3% 102.4% 18.1%
--	-------	------	--	------	---------------------------------------	--------------------	---	-------	---------------------------------	-------------------------------------	----------	-------------------------------	---	---------------------------------------

16.45 Hours 11.25 Feet / Hour Total Drill Time = Average Penetration Rate = 5.13 Hours 37.04 Feet / Hour

Total Redrill Time = Average Penetration Rate =

Verticality Information

5.0" South X 19" East At Full Depth = S-ARC North = S-ARC South =

20.93"

Quality Coring: None.

Comments: Connected with piles 609, 621 & 631; Hole collapsed to 60'.

Secondary Pile #632 Area "B"

ב מפוע	1	CENALL EVOAVA	TION						CUT-OFF WALL CONSTRUCTION	VALL CONS	TRUCTION			
	0-100	FF WALL EACHY	2015								Non-Cher	Some	Theoretical	
	Fouriern	-	Drill Footage		Pure Drill Time		enetration Hate				and obes.		1/24	O. markens
Drilling	Rig	ð	Drill	_		Redrill		Redrill FT / HB	Concrete	Grout	Concrete (CU.YD.)	COLYD.)	(CU.YD.)	Overpream
Date	*	Method	(E)	(FI)	E L	(SUL)	(ULI / ILI)	1 1 1 1 1	Cano					
03/16/94	-	DHD130A	R		2.08		31.25		03/16/94	74			15.2	387.5%
05/23/94	8	DHD130A	8	8	1.95	1.88	7.69	34.57	05/25/94	22.5	3.5		18.7	39.2%
06/27/94	0	DHD130A	110	08	0.85	1.48	35.29	54.05	06/27/94		83		25.7	24.6%
08/12/94	-	XL-24	185	110	3.92	4.42	19.13	24.89	08/12/94			47	43.2	8.8%

Total Drill Time = Average Penetration Rate =

8.80 Hours 21.02 Feet / Hour

7.78 Hours 32.78 Feet / Hour

Total Redrill Time = Average Penetration Rate =

Verticality Information

2.0" South X 7.25" East

At Full Depth = S-ARC North = S-ARC South =

26.67"

Quality Coring: None.

Comments: cavities 45-65'

Primary Pile #633 Area "B"

CUI - OFF WALL EXCAVATION CUI - OFF WALL EXCAVATION CUI - OFF WALL EXCAVATION CUI - OFF WALL EXCAVATION CUI - OFF WALL EXCAVATION CUI - OFF WALL EXCAVATION CUI - OFF WALL EXCAVATION CUI - OFF WALL EXCAVATION CUI - OFF WALL EXCAVATION CII CUI - OFF WALL EXCAVATION CII CUI - OFF WALL EXCAVATION CII - OFF WALL EXCAVATION CII - OFF WALL EXCAVATION CII - OFF WALL CII - OFF WALL EXCAVATION CII - OFF WALL COI - COI - OFF WALL CO	3		AVA CVT	I NO.						CUT-OFFV	CUT-OFF WALL CONSTRUCTION	TRUCTION			
Equipment Drill Foolage Pure Drill Time Peretration Rate Peretration Rate Ground (CU,YD.) Concrete Concrete Concrete Concrete Concrete Concrete CountryD.) CountryD.		2-123	THE WALL EXCAVE	NOIN								20.00	Caco	Theoretical	
High Redrift Excavation Drill Redrift Drill Redrift Drill Redrift Drill Redrift Concrete Grout Concrete (CU.YD.) (CU.YD.) (CU.YD.) COU.YD.) COU.YD.		Equipmen		I Drill Footage		Pure Drill Time		Penetration Pa	e			NOTI-Spec.	ondo.	i i i i i i i i i i i i i i i i i i i	1
# Method (FI)	Drilling	Rig		Drill	Redrill			Orill	Redrill	Concrete	Grout	Concrete (CU YD)	Concrete (CU,YD.)	(CU.YD.)	Overbreak
1 DHD130A 74 10 74 4.12 1.22 8.77 60.66 06/01/94 30 3.0 2.1 17.3 17.3 19.58 19.58 42.64 07/21/94 30 3.0 48.5 43.2	Date	#	Method	E)	(F)	(HHS)	CHL	לענו / וגו	MI / 11	Calo	20.00				
2 DHD130A 110 74 4.12 1.22 8.74 60.66 06/01/94 30 3.0 25.7 110 3.83 2.58 19.58 42.64 07/21/94 48.5 48.5 43.2	03/30/04	-	DHD130A	74		3.25		72.77		03/30/94	K	2.1		17.3	26.8%
1 XL-24 185 110 3.83 2.58 19.58 42.64 07/21/94 48.5 43.2	Delot 104		DHD130A	110	74		12			06/01/94	8	3.0		25.7	28.5%
VI-24	e li plon	v •	5		110		2.58			07/21/94			48.5	43.2	12.3%
	07/20/94		AL-24	3	2				١						

Total Drill Time = Average Penetration Rate =

11.20 Hours 16.52 Feet / Hour

Total Redrill Time = Average Penetration Rate =

3.80 Hours 48.42 Feet / Hour

Verticality Information

2.0" North X 12" West 20.93" 15.72" At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments: Cavity 66 to 94'

Secondary Pile #634 Area "B"

Drill Footage Redrill Drill Pure Drill Time Penetration Rate Redrill Drill Front HRS) FFT/HR) FFT/HR) Concrete Ground Concrete Concre	ם אפונ	CUT-C	-OFF WALL EXCAV	ATION						CUT-OFF W	T-OFF WALL CONSTRUCTION	TRUCTION			
Fig Excavation Drill Redrill Drill Following FFD FFD FFD FFD Concrete (FU/YD) Concrete (CU/YD) Concre		Fouriomer		Drill Footage		Pure Drill Time		Penetration Par				Non-Spec.	Spec.	Theoretical	
34 1 DHD130A 42 1.58 26.58 26.58 03/14/94 76 8 34 1 DHD130A 64 42 0.90 1.33 24.44 31.58 03/19/94 22 8 34 1 DHD130A 85 64 0.95 2.38 22.11 26.89 05/06/94 30 8.0 34 2 DHD130A 110 85 1.58 1.58 15.82 53.80 06/29/94 30 8.0 34 1 DHD130A 185 110 4.25 4.67 17.65 23.55 08/23/94 31	Drilling	Ę.#				HRS)	Redrill (HRS)	Drill (FT / HR)	Redrill (FT / HR)	Concrete Date	Graut (CU.YD.)	Concrete (CU.YD.)	Concrete (CU.YD.)	Volume (CU.YD.)	Overbreak
1 DHD130A 64 42 0.90 1.33 24.44 31.58 03/19/94 22 8 1 DHD130A 110 85 1.58 1.58 15.82 53.80 06/29/94 30 8.0 1 DHD130A 185 110 4.25 4.67 17.65 23.55 08/23/94	03/14/94	-	DHD130A	42				26.58		03/14/94	92			9.6	674.9%
1 DHD130A 85 64 0.95 2.38 2Z.11 26.89 05/06/94 30 8.0 8.0 8.0 8.0 DHD130A 110 85 11.58 1.58 23.55 08/23/94 31	03/19/94	_	DHD130A	2	42	0.90	1.33	24.44	31.58	03/19/94	8	80		14.9	100.7%
2 DHD130A 110 85 1.58 1.58 15.82 53.80 06/29/94 31 1 DHD130A 185 110 4.25 4.67 17.65 23.55 08/23/94	05/06/94	-	DHD130A	88	25	0.95	2.38	22.11	26.89	05/06/94	8	8.0		19.8	91.4%
1 DHD130A 185 110 4.25 4.67 17.65 23.55 08/23/94	06/29/94	8	DHD130A	110	88	1.58	1.58	15.82	53.80	06/29/94		31		25.7	20.7%
	08/22/94	-	DHD130A	185	110	4.25	4.67	17.65	23.55	08/23/94			47	43.2	8.8%

9.26 Hours 19.98 Feet / Hour Total Drill Time = Average Penetration Rate =

9.96 Hours 30.22 Feet / Hour Total Redrill Time = Average Penetration Rate =

Verticality Information

1.5" South X 1.0" East 15.72" 20.70"

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments: Connection with ditch during grouting, approx. 15' away.

Primary Pile #635

8.87 Hours 20.86 Feet / Hour Total Drill Time = Average Penetration Rate = 2.88 Hours 33.33 Feet / Hour Total Redrill Time = Average Penetration Rate =

At Full Depth = S-ARC North = S-ARC South =

4.5" South X 8.0" East 20.70" Verticality Information

29.59"

Quality Coring: None.

Secondary Pile #636 Area "B"

	!	WALL STREET	AC F					ľ	CUT-OFF V	VALL CONS	TRUCTION			
		JEE WALL EXCAVA	100								Non-Snec	Spec	Theoretical	
	Compine	+	Drill Footage		Pure Drill Time		Penetration Hate	IIe			المرا مورين		1/24	Author C
Deiling	o d	Excavation	Drill	Redrill	Di-II	Redrill	Drill	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Overbieda
Date C	?*	Method	E	Œ	(HRS)	(HRS)	(FT/HR)	HH/HB)	Date	(CU.VD.)	(CU.YU.)	(CU.YU.)	(CO.TD.)	
Date														
10/21/03	-	XI -24	25		8.75		7.31		10/22/93		36.5		14.9	144.2%
20120		!						1			•		43.5	AR 194
19/10/03	0	DHD130A	185	2		7.50		8.53	12/13/93		\$		1.01	2
20.7												¥	43.0	706, 226
10/90/20	•	DHD130A	185	185		10.08		18.35	02/02/94			8	49.6	
16/00/10														

Total Drill Time = Average Penetration Rate =

8.75 Hours 21.14 Feet / Hour

17.58 Hours 14.16 Feet / Hour

Total Redrill Time = Average Penetration Rate =

Verticality Information

0" North / South X 2.0" West

29.59° 24.19° At Full Depth == S-ARC North == S-ARC South ==

Quality Coring: None.

Comments: Tremie plate fell into hole at 185'

Primary Pile #637

Area "B"

		AVVA OVER 1 1919 THE	I TOTAL						CUT-OFF V	VALL CONS	STRUCTION			
		JEE WALL EXCAVE	NO.								Men Cree	Spec	Theoretical	
	Common	10	Drill Footage		Pure Drill Time		Penetration Rate				NOI-Spec	300		Acres de la Constitución de la C
1	-		11.0	Dadrill	ii.C	Redrill	EO.		Concrete	Grout	Concrete	Concrete	VOUTIE	OVERDIGEN
Dulling	Ď.	EXCAVALICATI	E ((PDG)	(HBC)	(FT / HR	(FT / HR)	Date	(CU:YD:)	(CU.YD.)	(CU.YD.)	(CU.VD.)	
Date	*	Method			2	2		١						
			\$		57.5		20.87		01/22/94		24		28.0	-14.4%
01/22/94	N	AL-24	3		3									
10,100	•	DHD130A	185	28	5.17	6.83	12.57	17.57	08/02/94			47	43.2	8.8%
10/00			3											

Total Drill Time = Average Penetration Rate =

10.92 Hours 16.94 Feet / Hour

Total Redrill Time = Average Penetration Rate =

6.83 Hours 17.57 Feet / Hour

Verticality Information

1.5" South X 1.5" East

24.19" 28.15" At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments: Lost rotary bucket cap in hole.

Secondary Pile #638

Area "B"

	Non-Spec. Spec. Ineoretical	Drill Redrill Concrete Grout Concrete Concrete Volume Overpreak		23.48 10/16/93 62 43.2 43.5%
NOIL	Drill Footage Pure Drill Time	Drill Redrill Drill	1	185 7.88
LIT-OFF WALL EXCAVA	a international	Rig Excavation	# Method	1 XL-24
2		Drilling	Date	10/16/94

Total Drill Time = Average Penetration Rate =

7.88 Hours 23.48 Feet / Hour

Total Redrill Time = Average Penetration Rate =

Verticality Information

0.5" South X 1.0" East 28.15" 28.31"

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments: Cavity 50 - 60' deep

Primary Pile #639 Area "C"

CUT - OFF WALL EXCAVATION Equipment Drill Footage Pure Drill Time Dailerg High Excavation Drill Footage Pure Drill Time Dailerg # Method (FT) (HRS) (HRS) 11/29/93 1 DHD130A 185 10.08	CUT-OFF WALL CONSTRUCTION	Spec. Theoretical	Drill Redrill Concrete Grout Concrete Concrete Volume Overbreak		18.35 11/30/93 43.2 13.4%	
CUT - OFF WALL EXCAVATION Equipment Drill Footage Rig Excavation Drill Redrill # Method (FT) 33 1 DHD130A 185		I ≔	= Q		10.08	
CUT-OFF W Equipment Rig E # 1 1 1	7	Footsde		(12)	185	
SB	F WALL EXCAVATION	EC.	_	Method	DHD130A	
	CIT-OF	Company	7	#	/93 1	

Total Drill Time = Average Penetration Rate =

10.08 Hours 18.35 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

0.75" North X 1.5" West 28.31" 26.58" At Full Depth =

S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile #640 Area "C"

	CIT	DEE WALL EXCAVA	NOIT						CUT-OFF W	VALL CONS	TRUCTION			
	3	THE PROPERTY OF THE PROPERTY O					Denotembles Date	٩			Non-Spac	Spec	Theoretical	
	Equipment	-	Drill Footage		Pure Unil Imme		וכ	- Ł			-	in de		
Drilling	. <u>.</u>	Excavation	ii-C	Redrill	E C	Redrill		Redrill	Concrete		Concrete	Concrete	Volume	Cverbreak
	? 4	Mothod	Ę	Ę	HRS	HRS	(FT / HR)	(F) HB	Date	(CU:YD:)	(CU.YD.)	(G.YD.)	(CU.XD.)	
Dale	*	Medica								ı				
							4 1		40/40/02		414		43.2	163 0%
10/11/93	-	DHD130A	185		16.58		9.		28/21/01		<u> </u>		100	
									10,00,00			2	49.0	30.400
11/13/93	-	DHD130A	185	185		12.25		01.61	\$5/5L/LL			3	7.24	64:03
					_									

16.58 Hours 11.16 Feet / Hour

Total Drill Time = Average Penetration Rate =

Total Redrill Time = Average Penetration Rate =

12.25 Hours 15.10 Feet / Hour

Verticality Information

1.0" North X 2.75" East

26.58" At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

10/12/93 drilled to 185' down staged to 100'; caved in to 128'. Comments:

Primary Pile #641 Area "C"

		reak		12.3%
	_	Overbreak		43.2
	Theoretical	Volume	(CU.YD.)	
	Spec.	Concrete	(CU.YD.)	48.5
STRUCTION	Non-Spec.	Concrete	(CU.YD.)	
WALL CONS		Grout	(CU.YD.)	
ICUT-OFF WALL CONSTRUCTION		Concrete	Date	11/20/93
	ite	Redrill	(FT / HR)	
	Penetration Ra	Drill	(FT / HB)	26.73
		Redrill	(HRS)	
	Pure Drill Time	III.O	(HRS)	6.92
		Redrill	E	
MULT	Drill Footage	Diil	Ę	185
FF WALL EXCAVA		Excavation	Method	XL24
CIT-O	Follinmen	Rid	? *	+
		Drilling	2	11/19/93

6.92 Hours 26.73 Feet / Hour

Total Drill Time = Average Penetration Rate =

None

Total Redrill Time = Average Penetration Rate =

2.25" North X 3.0" East

Verticality Information

At Full Depth = S-ARC North = S-ARC South =

28.48"

Quality Coring: None.

Comments: Cavity 40 - 46'.

Secondary Pile #642 Area "C"

		Overbreak		80.6%
		Volume	(CU.YD.)	43.2
	Spec.			78
TRUCTION	Non-Spec.	Concrete	(CU.YD.)	
OUT-OFF WALL CONSTRI			(CU.YD.)	
CUT-OFF V		Concrete	Date	10/07/93
	ite	Redrill	(FT / HR)	
	Penetration Rate	Duil	(FT / HR)	11.81
		Redrill	(HRS)	
	Pure Drill Time	Drill	(HRS)	15.66
		Redrill	(FT)	
TION	Drill Footage		Ð	185
FF WALL EXCAVA	t	Excavation	Method	DHD130A
CUT-0	Equipmen	Ria	*	_
		Drilling	Date	10/06/93

15.66 Hours 11.81 Feet / Hour

Total Drill Time = Average Penetration Rate =

None

Total Redrill Time = Average Penetration Rate ==

Verticality Information
At Full Depth =
S-ARC North =
S-ARC South =

0" North / South X 1.5" East 23.33" 24.87"

Quality Coring: None.

Comments:

Primary Pile #643 Area "C"

		Overbreak		20.4%
	Theoretical	Volume	(CU.YD.)	43.2
	Spec.	Concrete	(CU.YD.)	25
STRUCTION	Non-Spec.	Concrete	(CU.YD.)	
WALL CONSTRUCTION		Grout	(CU.YD.)	
CUT-OFF W		Concrete	Date	. 11/05/93
	ate	Redrill	(FT / HB)	
	Time Penetration Re		(FT / HR)	28.64
			(HPS)	
	^b ure Drill Time	Orill	(HRS)	6.46
		Redrill	Œ	
ATION	Drill Footage	Drill	Œ	185
FF WALL EXCAV,	4	Excavation	Method	XL-24
CUT-C	Equipmen	Ä	*	-
		Drilling	Date	11/04/93

Total Drill Time = Average Penetration Rate =

6.46 Hours 28.64 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

1.25" South X 0" East / West 24.87" 29.83" At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile #644 Area "C"

_		ALL MAN TO STANK	TION						CUT-OFF V	VALL CONS	TRUCTION			
	200	CTT WALL EXCAVE										0.00	Theoremical	
	Fortimen	ant.	Drill Footage		Pure Drill Time		Penetration Rate				Non-spec.	onec.	Hadrand	
	2				=	III-	===	Dodrill	Concrete	100	Concrete	Concrete	Volume	September
Drilling	Š	Excavation		Hedri	5		=		2000			1	(4)	
2	2	Mothers	Ę	٤	HRS	HRS		FH/HB	Date	CO.XD.	CO.YD.)	(50.10.)	(20.12.)	
Date	#	Menion												
10/04/93	-	DHD130A	185		13.67		13.53		10/04/93			25	43.2	31.9%

Total Drill Time = Average Penetration Rate =

13.67 Hours 13.53 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

1.0' North X 0.25' West 29.83'' 34.14''

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile #645

Area "C"

ICUT-OFF WALL CONSTRUCTION	Drill Expresse Dura Drill Time Penetration Rate Non-Spec. Spec. Theoretical	Concrete Concrete	Concrete	ALPS) (FT / HR) (FT / HR) Date (CU,YD.) (CU,YD.)		185 7.09 26.09 11/01/93 49 43.2 13.4%	
NC			_	_	Call Market		
OLIT OFF WALL EXCAVATION	COL COL MARE EXCLANA		Bio Excavation	- W-W-	# Memod	2 XL-24	
			Drilling		Date	11/01/93	

Total Drill Time = Average Penetration Rate =

7.09 Hours 26.09 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

6.75" North X 0" East / West 34.14" 14.77"

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile #646 Area "C"

									CLIT_OFF WALL CONSTRUCTION	VALL CONS	TRUCTION			
		DEF WALL EXCAVA	NOIL								1000	Spac	Theoretical	
			Daill Englands		Dura Drill Time		Penetration Rate	ite			Non-spec.	sher.	Heneman	
	LOUIDHOU				ŀ					1	Compristo	Concrete	e Elizo	
Drilling	Rio	Excavation	Dui	Redrill	T C	Redrill	lla C	E SEL	Concrete				(CL VD)	
2	*	Method	(J	Œ	(HRS)	(HRS)	(FT / HR)	(FI / HH)	Dare	100.00	20.10.1			
Cale	*	The state of the s	-						_					
09/29/93	-	DHD130A	185		28.84		6.41		09/29/93			50.5	43.2	16.9%

28.84 Hours 6.41 Feet / Hour

Total Drill Time = Average Penetration Rate =

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

o" North / South X 2.25" East 14.77" 23.75" At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile #647 Area "C"

	F	Chathrask			43.2 19.2%	
	Theoretica	Volume.	(CU.YD.)			
	Spec		COLVD	1	51.5	
WALL CONSTRUCTION	Non-Snec	ing object.	Concrete	121		
WALL CON		•	Grout	100		
CUT-OFFV			Concrete	Calle	11/11/93	
		1	Redrill	(FI / HR)		
		Penetration Hate		(FI / HH)	9.65	
			Redrill	(HHS)		
	ı	Pure Drill Time	Drill	(HRS)	19.17	
			Redrill	(ED		
I WOLL	100	Drill Footage	Drill	E	185	
AVA CVO LIVE	OFF WALL EACAY	1	Excavation	Method	DHD130A	
		Equipmon	Rigin	*	-	_
			Drilling	Date	11/11/93	

Total Drill Time = Average Penetration Rate =

19.17 Hours 9.65 Feet / Hour

None

Total Redrill Time == Average Penetration Rate ==

2.0° South X 1.0° East 23.75° 31.08° At Full Depth = S-ARC North = S-ARC South = Verticality Information

Quality Coring: None.

Secondary Pile #648 Area "C"

JCTION	Snec	The state of the s	Concrete Concrete Volume Overpreak	(CO.TD.)	73 31 36		
CUT-OFF WALL CONSTRUCTION			Concrete Grout	-		09/21/93	
		enetration Hate	Drill Redrill	(FT/HR) (FT/HR)		10.52	
		ure Drill Time	Drill Redrill			17.59	
IACI-	20	Orill Footage	Drill Redrill			185	
F OFF MALL EVOAVAT	I - OFF WALL EACAVAI	- Company	Fxcavation	Method		1 DHD130A	
	3	i io		\$ *	Date	09/24/93	

Total Drill Time = Average Penetration Rate =

17.59 Hours 10.52 Feet / Hour

None

Total Redrill Time == Average Penetration Rate ==

Verticality Information

1.25" North X 0" East / West 31.08" 27.78" At Full Depth =

S-ARC North = S-ARC South =

Quality Coring: None.

Comments: Connected with piles 612, 582, 552 & 532

Primary Pile #649 Area "C"

10.0% Overbreak 43.2 Theoretical Volume (CU,YD.) 47.5 Spec. Concrete (CU.YD.) Non-Spec. Concrete (CU.YD.) -OFF WALL CONSTRUCTION Grout (CU.YD.) 11/09/93 Concrete Date Redrill (FT./HR) Penetration Rate Drill (FT / HR) 13.53 Redrill (HRS) ure Drill Time Drill (HRS) 13.67 Drill Footage Drill (FT) 185 CUT-OFF WALL EXCAVATION Excavation Method **DHD130A** quipment Rig # 11/09/93 Drilling Date

Total Drill Time = Average Penetration Rate =

13.57 Hours 13.53 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

2.0" North X 1.0" East 27.78" 23.76" At Full Depth = S-ARC North = S-ARC South = Verticality Information

Quality Coring: None.

Secondary Pile #650 Area "C"

	iovitor	_	(CU.YD.)		43.2 13.4%	
	_	_	Concrete Volu (CU.YD.) (CU.		64	
RUCTION	,		Concrete C	-		
CUT-OFF WALL CONSTRUCTION			Grout			
ICUT-OFF			Concrete		10/01/93	
		- 1	Redrill (FT / HR)	-		
		Penetration Hate	Drill (FT / HB)		13.38	
		60	Redrill	2		
		Pure Drill Time	Orill	2	13.83	-
			Redrill			***************************************
ATION	1011	Drill Footage	Ē([1]	185	
VEE WALL EVENAVA	JEE WALL EACAY	14	Ω.	Method	DHD130A	
110	3	Fortiment		*	-	
			Drilling	Date	09/30/93	

Total Drill Time = Average Penetration Rate =

13.83 Hours 13.38 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

At Full Depth = 0" North / South X 0" East / West S-ARC North at 185' = 23.76" S-ARC North at 130' = 28.76" S-ARC South = 24.24"

Quality Coring: None.

Comments:

Primary Pile #651 Area "C"

		Overbreak		15.3%	
	Theoretical	Volume (CU.YD.)		30.4	
	Spec.	Concrete (CU.YD.)		35	
TRUCTION	Non-Spec.	Concrete (CU,YD.)			
CUT-OFF WALL CONSTRUCTION		Grout (CU.YD.)			
ICUT-OFF		Concrete		10/28/93	
	ate	Redrill (FT / HR)			
	Penetration Rate	Drill FT / HB		20.00	
		Redrill	2		
	Pure Drill Time	_ =	200	6.50	
		Redrill			
NOIT	Drill Footage	Ē		130	
FE WALL EXCAVE	1	Excavation	Method	240	
0-11-0	Suring Park	Rig	#	2	
		Drilling	Date	10/28/93	

Total Drill Time = Average Penetration Rate =

6.50 Hours 20.00 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information
At Full Depth =
S-ARC North =
S-ARC South =

1.5" South X 3.25" West 24.24" 30.41"

Quality Coring: None.

Secondary Pile #652 Area "C"

	11.0	TELMAIL EVENAVA	TION						CUT-OFF V	VALL CONS	CONSTRUCTION			
		こくていくじ コンマン・	100									0	Theoretical	
	- attimon	+	Drill Footage		Pure Drill Time		Penetration Rate	- 1			Non-spec.	2000	i i construction	
Cailling	S. S.	Evcavation	Duill	Redrill	Dei	Redrill	Drill	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Cverbreak
	2 *	- Control	Ę	E C	HRS	HRS)	(FT / HR)	(FT / HR)	Date	(CU.YD.)	(CU.YD.)	(CU.VD.)	(CU.YD.)	
Date	*	Medico												
10/08/93	-	DHD130A	130		10.66		12.20		10/08/93			8	30.4	18.6%

10.66 Hours 12.20 Feet / Hour

Total Drill Time = Average Penetration Rate =

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

2.0' North X 2.5' East 30.41" 24.03"

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile #653 Area "C"

		Cverbreak		15.3%	
	Theoretical	Volume (CU.YD.)		30.4	
	Spec.	Concrete (CU.YD.)		35	
TRUCTION	Non-Spec.	Concrete (CU, YD.)			
WALL CONSTRUCTION		Grout			
CUT-OFF		Concrete		11/01/93	
	ate	Redrill (ET / HB)			
	Penetration Rate	Drill	WII / I I	22.83	
		Redrill	CUL		
	Pure Drill Time	Drill	SHE)	5.67	
		Redrill	(1.1)		
MCITA	Drill Footage		(F)	130	
FF WALL EXCAVE	1	Ğ,	Method	XL-24	
CITTO	Follower	Rig	#	2	
		Drilling	Date	11/01/93	

Total Drill Time = Average Penetration Rate =

5.67 Hours 22.93 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

0.5" North X 1.75" West 24.03" 28.14" At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile #654 Area "C"

		Overbreak		15.3%	
	_	Volume (CU.YD.)		30.4	
	Spec.	Concrete (CU.YD.)		8	
TRUCTION	Non-Spec.	Concrete (CU.YD.)			
WALL CONS		Grout (CU YD.)			
CUT-OFF V		Concrete		10/14/93	
	Ite	Redrill (FT / HR)			
	Penetration Rate	Drill (FT / HB)	100	8.21	
		Redrill	Quin		
	Pure Orill Time	= 6	QUE.	15.83	
		Redrill			
ATION	Drill Foodage	Dill	(1)	130	
FF WALL FXCAVA	1	_ _ _	Method	DHD130A	
C-TIT-O	3	Rig	*	-	
		Drilling	Date	10/14/93	

Total Drill Time = Average Penetration Rate =

15.83 Hours 8.21 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

1.5" North X 1.25" West 28 14" 23.23"

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile #655 Area "C"

	coipe		(CU,YD.)		30.4 15.3%	
	Ĺ		(CU.YD.) (CU	L	32	
RUCTION	ŀ	_	Concrete	┞		
ICUT - OFF WALL CONSTRUCTION			Grout		3	
TCUT-OF			Concrete	Caro	11/04/93	
		- 1	Redrill (T. / HD)	11111		
		Penetration Rate	Drill Party Par		17.74	
		•	Redrill	CUL		
		Pure Drill Time		E L	7.33	
			Red iii	2		
ATION	100	Drill Footage		E E	130	
CENANT EVEN	TANKET TYPE		Excavation	Method	240	
1	2	Fortingen	Rig	#	+	
			Drilling	Date	11/03/93	

Total Drill Time ≈ Average Penetration Rate =

7.33 Hours 17.74 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

0.75" South X 1.0" East 23.23" 27.79" At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile #656 Area "C"

	1110	OCE MAIL EYCAVA	TION						ICUT-OFF V	₹	L CONSTRUCTION			
	2 - 23	TANCE EVOLA	1011								1010	Owo	Thomsond	
	Fortimen	+	Drill Footage		Pure Drill Time		Penetration Hate	ite		٠	Non-spec.	300	a de la companie de l	
Drilling	Rio	Excavation	Drill	Redrill	Dill	Redrill	Drill	Redriff	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
Date	*	Method	Œ	Œ	(FIRS)	(HRS)	(FT/HB)	(FT / HR)	Date	(CU.YD.)	(CU.YD.)	CO.YD.)	(7.7.7)	
10/18/93	+	XL-24	130		6.50		20.00		10/18/93			36	30.4	18.6%

Total Drill Time == Average Penetration Rate ==

6.50 Hours 20.00 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

At Full Depth = S-ARC North = S-ARC South =

0" North / South X 0" East / West 27.79" 19.80"

Quality Coring: None.

Comments:

Primary Pile #657 Area "C"

	Theoretical	CONCRETE VOLUME OVERDITERIX (CU.YD.) (CU.YD.)		35 30.4 15.3%	
L CONSTRUCTION	Non-Spec.	Concrete (CU YD.)			
ICUT-OFF WALL C	_	Concrete Grout		10/30/93	
	Penetration Rate	Orill Redrill	1	13.33	
	Jure Drill Time	Drill Redrill	-	9.75	
NO	Drill Footage	Drill	(FI)	. 130	
-OFF WALL EXCAVAT	oment	Ð,	Method	2 DHD130A	
	Folini	_	Date #	10/29/93	

Total Drill Time = Average Penetration Rate =

9.75 Hours 13.33 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

4.25" South X 2.75" West At Full Depth = S-ARC North = S-ARC South =

19.80° 33.62°

Quality Coring: None.

Secondary Pile #658 Area "C"

	_	Ime Overbreak YD.)		30.4 15.3%	
	F 	COU.YD.) (CU.YD.)		35	
RUCTION		Concrete C			
T-OFF WALL CONSTRUCTION		Grout			
CUT-OFF		Concrete	-	10/27/93	
	late	Redrill (FT / HR)			
	Penetration F	Drill (FT / HB)		15.93	
		Redrill	2		
	Pure Drill Time	Dall	2	8.16	
		Redrill			
ATION	Drill Footzage	E (130	
DEF WALL EXCAVA		Ð.	Memod	DHD130A	
CHIT	Foribment	Rig	*	2	
		Drilling	Date	10/27/93	

Total Drill Time = Average Penetration Rate =

8.16 Hours 15.93 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

At Full Depth = S-ARC North = S-ARC South =

1.25" North X 0' East / West 33.62" 24.87"

Quality Coring: None.

Comments:

Primary Pile #659 Area "C"

Ш	Non-Spec. Spec. Theoretical	Drill Redrill Drill Redrill Drill Redrill Concrete Grout Concrete	(III)	130 9.50 13.68 11/10/93 35 30.4 15.3%
	_	Drill Orill	(CHIC)	
CUT-OFF WALL EXCAVATION	Drill Footage	Rig Excavation Drill	# Method (F1)	1 240 130
	E	Drilling	Date	11/10/93

Total Drill Time = Average Penetration Rate ==

9.50 Hours 13.68 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

0' North / South X 1.5" West 24.87" 26.76" Verticality Information

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile #660

Area "C"

									CUT-OFF	WALL CONS	TRUCTION			
		PET WALL EXCAVA	202								Alon Coor	Sher	Theoretical	
۳	100		Drill Footade		Pure Drill Time		Penetration Hate	- 1			NOI-Space	3	Volume	Ountrook
-		1	OR THE				-	Dodrill	Concrete	1	Concrete	Concrete	AMILIA	
_	Rid	Excavation	II D	Redrill		Hedrill			Data		(CL XD)	(CU.YD.)	(CU.YD.)	
	*	Method	E	E	HR3)	Q L	(FI / NH)	/UU / IU/	Daid	100				
0/26/93	2	XL-24	130		6.50		20.00		10/26/93			35.5	30.4	16.9%
														i

6.50 Hours 20.00 Feet / Hour

Total Drill Time = Average Penetration Rate =

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

o" North / South X 2.0" West 26.76" 26.49"

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile #661 Area "C"

	Non-Spec. Spec.	Redrill Concrete Grout Concrete Concret	Care Control	11/08/93 37.5 30.4 23.5%	
	n Rate	_	(F1 / HR) (F1 / H	19.09	
	ire Drill Time	Drill Redrill		6.81	
	Footage	Drill Redrill	ED (ED)	130	
EWALL EYCAVATION	Drill	Excavation	Method	240	
	TOI TOO	i i	Date #	11/08/93	

Total Drill Time = Average Penetration Rate =

6.81 Hours 19.09 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

0" North / South X 1.0" East 26.49" 26.70" At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile #662 Area "C"

		Overbreak		15.3%	
	Theoretical	(CU.YD.)		30.4	
	Spec.	Concrete (CU.YD.)		35	
TRUCTION	Non-Spec.	Concrete (CU.YD.)			
WALL CONS		Grout (CU YD.)			
CUT-OFF		Concrete		10/25/93	
		Redrill (FT / HR)			
	Penetration Rate	Drill (ET / HB)		19.03	
		Redrill	2		
	Pure Drill Time	Drill	CYL)	6.83	
		Redrill			
MOIT	Drill Footage	<u></u>	(LI)	130	
FF WALL EXCAVA		Excavation	Method	XL-24	
CIT-0	Forminan	Rig	#	2	
		Drilling	Date	10/25/93	

Average Penetration Rate = Total Drill Time =

6.83 Hours 19.03 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

0" North / South X 2.5" East 26.70" 26.58" At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments: Cavity 59-63'

Primary Pile #663 Area "C"

Theoretical Volume (CU.YD.) 8 Spec. Concrete (CU.YD.) CUT-OFF WALL CONSTRUCTION
Concrete Grout Concrete
Date (CU.YD.) (CU.YD.) 11/02/93 Concrete Date (FT/HR) Redrill 14.32 (FT/HB) Redrill (HRS) Pure Drill Time Drill (HRS) 80.6 Redrill (FI) Drill Footage Drill (FT) CUT-OFF WALL EXCAVATION Excavation Method .g Drilling Date

15.3%

30.4

Overbreak

Total Drill Time == Average Penetration Rate =

9.08 Hours 14.32 Feet / Hour

8

DHD130A

8

11/02/93

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

0" North / South X 0" East / West 26.58" 25.27" At Full Depth =

S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile #664

Area "C"

-	1110	TEC MAIL EVENAVA	HOIL						CUT-OFF V	CUT-OFF WALL CONSTRUCTION	TRUCTION			
	3	JET WALL CAUAVA	100								Man Spoo	Suga	Theoretical	
	Fortimen	-	Drill Footage		Pure Drill Time		Penetration Hate	- 1			NOT - SPEC	3	i concence	
Drilling	Rig	Excavation	Drill	Redrill	iii o	Redrill	Drill	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
Date	*	Method	E	Œ	(HRS)	(HHS)	(FI / HH)	FI / HH)	Date	(0.10.)	20.10.1	100		
10/21/93	2	DHD130A	130		9.34		13.92		10/21/93			36	30.4	18.6%

9.34 Hours 13.92 Feet / Hour

Total Drill Time = Average Penetration Rate =

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

1.0" South X 1.0" West 25.27" 28.84" At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile #665

Area "C"

									CITABLE	VALL CONS	TRUCTION			
	55	JEE WALL EXCAVA	NO										Theresis	
	Equipmen	+-	Drill Footage		Pure Drill Time		Penetration Rate	te			Non-Spec.	obec.	I Leonencan	1
Drilling	Rig	Excavation	Drill	_	Drill	Redrill	Dill	Redrill	Concrete	Grout	Concrete	Concrete	Volume (CV 2)	Cverbreak
Date	*	Method	Œ	E	(HRS)	(HRS)	(FT / HH)	(F1 / HH)	Date	(50.10.)	100.TU	יחויסס	100	
11/04/93	-	XL-24	130		4.37		29.75		11/04/93	-		35	30.4	15.3%

Total Drill Time = Average Penetration Rate =

4.37 Hours 29.75 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

0.5" North X 1.5" West 28.84" 27.05" At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile #666 Area "C"

	C11T_C	DEF WALL EXCAVA	HON						CUT-OFF W	VALL CONS	TRUCTION			
			Drill Footage		Pure Drill Time		Penetration Rate	ite			Non-Spec.	Spec.	Theoretical	
Drilling	Riv	Fxcavation	Duil	Redrill	Drill	Redrill	Drill		Concrete	Grout	Concrete	Concrete	Volume	Overbreak
Date	*	Method	Œ	(FI)	(HRS)	(HRS)	(FT/HR)	(FT/HR)	Date	(CU:VD:)	(CU.YD.)	(CU.YU.)	(CU.YU.)	
10/19/93	2	240	130		7.75		16.77	٠	10/19/93			88	30.4	25.2%

Total Drill Time = Average Penetration Rate =

7.75 Hours 16.77 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

0.75" North X O' East / West 27.05" 22.43" At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile #667 Area "C"

Total Drill Time = Average Penetration Rate =

8.67 Hours 14.99 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

At Full Depth = Verticality Information

2.0° South X 2.25° West 22.43° 27.88° S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile #668 Area "C"

	1110	CE WALLEYCAVA	MOITS						CUT-OFF V	WALL CONS	TRUCTION			
Ī		T WALL LADAY	Drill Footscie		Pure Drill Time		Penetration Rate	te			Non-Spec.	Spec.	Theoretical	
Drilling	Richard	Excavation	Drill	Redrill	1_	Redrill	Drill	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
Date 3	P*	Method	Œ	Œ	(HRS)	(HRS)	(FT/HR)	(FT/HR)	Date	(CU.YD.)	(CU.YD.)	(CU.YU.)	(CO.YD.)	
									00,07,07			S.	30.4	18 6%
10/16/93	-	240	130		10.00		13.00		28/01/01			3	Š	200
41/45/03	-	DHD130A	130	130		7.50		17.33	11/15/93			35	30.4	15.3%
8/2/2	-													

Total Drill Time = Average Penetration Rate =

10.00 Hours 13.00 Feet / Hour

7.50 Hours 17.33 Feet / Hour

Total Redrill Time = Average Penetration Rate =

Verticality Information

0.75" South X 2.25" East 27.88"

33.14" At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments: Caved in to 90' on 10/16/93; cavity 38-55'.

Primary Pile #669 Area "C"

		yes	<u> </u>			38.1%	ì	13.5%	
		Chartrack	200						
	Theoretical	Volume		(CO.YD.)		14.5	•	30.4	
	Spec.	Comone	COLCIERE	(CO.AD.)			!	8	
TRUCTION	Non-Spec.	-	COLCIBIO	(CU.VD.)		60			
CUT-OFF WALL CONSTRUCTION			1005	(CU.YD.)		12			
CUT-OFF \			Concrete	Date		11/20/93		11/29/93	
			Hedrill	(FI / HR)				21.23	
	Penetration Bate			(FT / HR)		31.47		16.00	
		Ī	Redrill	(HRS)				2.92	
	Pure Orill Time			(HRS)		1.97		4.25	
			Redrill	Ę				8	
NOIL	Dell England			Ę.		8		130	
EE WALL EYCAVA	LI WALL LAUNT		Excavation	Mothod	DOIRGIN	XI -24	į	DHD130A	
1		-dambine-	Si	2 4	#	-	-	_	
			Drilling		Jale	11/20/03	Se (07/11	11/29/93	

Total Drill Time = Average Penetration Rate =

6.22 Hours 20.90 Feet / Hour

2.92 Hours 21.23 Feet / Hour

Total Redrill Time = Average Penetration Rate =

Verticality Information

4.75" North X 2.5" West

33.14" 24.42" At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile #670 Area "C"

CUT-OFF WALL CONSTRUCTION	Non-Spec. Spec. Theoretical	drill Concrete Grout Concrete Concrete Volume Overbreak (CU.YD.) (CU.YD.) (CU.YD.)		
	Penetration Rate	Drill Redrill	8.30	
	Pure Drill Time	Drill Redrill	5.66	
NO	Drill Footage	Drill Redrill	130	
T_OFF WALL FXCAVAT	- Commont	D.	1 DHD130A	
	S I	Drilling	Date #	

Total Drill Time = Average Penetration Rate =

15.66 Hours 8.30 Feet / Hour

Total Redrill Time = Average Penetration Rate =

3.28" North X 0" East / West Verticality Information

24.42" 26.37" At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile #671 Area "C"

		Overbreak		15.3%	
	Theoretical	(CU.YD.)		30.4	
	Spec.	Concrete (CU:YD.)		35	
TRUCTION	Non-Spec.	Concrete (CU.YD.)			
ICUT-OFF WALL CONSTRUCTION		Grout	1		
CUT-OFF		Concrete	200	10/28/93	
		Redrill	7		
	Penetration Rate	Drill Out / Tay	(UL) 1	19.49	
		Redrill	CUU		
	Pure Drill Time	Drill	(CHH2)	6.67	
		Hedrill (CL)		
ATION	Drill Footage	Ē.	(FI)	130	
FF WALL EXCAVA		Excavation	Method	240	
	-dumman	Rig	#	2	
		Drilling	Date	10/28/93	

Total Drill Time == Average Penetration Rate ==

6.67 Hours 19.49 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

3.0" North X 0.5" West 26.37" 24.51" At Full Depth =

S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile #672 Area "C"

	1110	SEE WALL EYCAVA	NOIL						CUT-OFF V	WALL CONSTRUCTION	TRUCTION			
	0	JET WALL LAUANT	1011								Non-Spor	Spec	Theoretical	
	-chimmen	+	Drill Footage		Pure Unil Ime		Penetration Hate	e			300	inde		
Drilling	Rig	Ĭ.	Drill	Redrill	Drill	Redrill	Dill	Redrill	Concrete	Grout	Concrete	Concrete	Volume (CLI VD.)	Overbreak
Date	*	Method	Œ	(FI)	(HHS)	Q L	(FI / HH)	ונו / שט	Dale	20.10.1	20.10.	131.55		
10/08/93	-	DHD130A	130		16.92		7.68		10/11/93			39.5	30.4	30.1%

16.92 Hours 7.68 Feet / Hour

Total Drill Time = Average Penetration Rate =

Total Redrill Time = Average Penetration Rate =

None

1.5" North X 2.0" West 24.51" 25.27" Verticality Information
At Full Depth = 7
S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile #673 Area "C"

		Overbreak	15.3%	
	Theoretical	(CU,YD.)	30.4	
	Spec.	Concrete (CU.YD.)	38	
TRUCTION	Non-Spec.	Concrete (CU:YD.)		
WALL CONSTRU		Grout (Cu YD)		
CUT-OFF V		Concrete	11/01/93	
	l t	Redrill FT / HB	1	
	Penetration Rate		21.78	
		Redrill	1	
	Pure Drill Time		5.97	
		Redrill	(1)	
ATION	Drill Footsde	E (130	
EF WALL EXCAVE		Excavation	Method XL-24	1000
	Fornismen	Rig	* 2	
		Drilling	Date 10/30/93	

Total Drill Time = Average Penetration Rate =

5.97 Hours 21.78 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

0.75" North X 1.75" East 25.27" 25.58"

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile #674

Area "C"

	TIO	CE WALL EYOAVATION	NOIT						ICUT-OFF WALI	VALL CONS	TRUCTION			
		THE WALL LADON									Mare Conce	Snoc	Theoretical	
	Falinment		Drill Footage		Pure Drill Time		Penetration Hate				NOI-Spec.	3000	The section	
Drilling	Rig	Excavation	Orill	=	Drill	Redrill	Drill	Redrill	Concrete	Grout	Concrete	Concrete	Volume (CY LY)	Overbreak
Date	*	Method	(FI	(FI)	(HHS)	(SHZ)	(FI / HR)	(חח / ויי)	Cale	20.10.	20.00			
10/07/93	-	DHD130A	130		11.17		11.64		10/07/93			æ	30.4	12.0%

Total Drill Time == Average Penetration Rate ==

11.17 Hours 11.64 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

0" North / South X 0" East / West 25.58" 32.98" Verticality Information

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile #675 Area "C"

_	-	_	-	I	-		ı
		American	Overbream			15.3%	
	Theoretical	1/24:110	Volume	CO.YD.)		30.4	
	Spec.		Concrete	(CU.YD.)		88	
TRUCTION	Non-Spec.		Concrete	(CU.VD.)			
CUT-OFF WALL CONSTRUCTION			Grout	(CC.YD.)			
ICUT-OFF			0	Date		11/03/93	
	e je	1	Redrill	EH/HB			
	Donotration Bate	diction		FT/HR		15.20	
		1	Redrill	(HRS)			
	Dame Daill Time		Pu-	HRS	2	8.55	
			Redrill	٤			
MULTI	10.0		Drill	Ę		130	
FE WALL EYCAVE	AVEC CACA		Excavation	Mothod	Medica	DHD130A	
0 11 T	3		Big	? #	*	-	
			Drilling	940	Dale	11/03/93	

8.55 Hours 15.20 Feet / Hour

Total Drill Time = Average Penetration Rate =

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

6.0° North X 6.75° West 32.98° 19.12° At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile #676 Area "C"

	CIT-O	FE WALL EXCAVA	NOITI						CUT-OFF WALL CONSTRUCTION	VALL CONS	STRUCTION			
	Forming	-	Drill Footage		Pure Drill Time		Penetration Rate	te			Non-Spec.	Spec.	Theoretical	
Drilling	Rig	Excavation	Ē	Redrill	Drill	Redrill	Orill (FT / HR)	Redrill (FT / HR)	Concrete	Grout (CU.YD.)	Concrete (CU.YD.)	Concrete (CU.YD.)	Volume (CU.YD.)	Overbreak
Date	*	Memod			2	2								
09/28/93	-	DHD130A	130		11.25		11.56		66/82/60			35	30.4	15.3%
	_													

11.25 Hours 11.56 Feet / Hour

Total Drill Time = Average Penetration Rate =

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

2.0" North X 0" East / West 19.12" 26.35"

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile #677 Area "C"

		FE WALL EXCAV.	ATION						CUT-OFFV	WALL CONS	TRUCTION			
	Forming	1	Drill Footage		Pure Drill Time		Penetration Rate	ate			Non-Spec.	Spec.	Theoretical	
Drilling	Big	Excavation	Dial	Redrill	1	Redrill	Drift	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
Date	D *	Method	Œ	Œ	(HRS)	(HRS)	(FT/HB)	(FI/HB)	Date	(CO.YD.)	(CU.YD.)	(CU.VD.)	(CU,YU.)	
10/29/93	2	DHD130A	130		9.33		13.93		10/29/93			35	30.4	15.3%

Total Drill Time = Average Penetration Rate =

9.33 Hours 13.93 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

1.75" North X 0" East / West At Full Depth = S-ARC North = S-ARC South =

26.35" 24.15"

Quality Coring: None.

Secondary Pile #678 Area "C"

	TIL	VEE WALL EXCAVA	MULTION						CUT-OFF V	WALL CONS	L CONSTRUCTION			
		I WALL LAGAN			1 11 0		Denotembion Do	١			Non-Snec	L	Theoretical	
	Forting	-	Drill Footage		Fure Dull Ime		renellation hate	1			-			
Drilling	Rig	Excavation		Redrill	Drill	Redrill		Redrill (1)	Concrete	Grout	Concrete	Concrete (CU.YD.)	(CU.YD.)	Overbreak
Date	*	Method	(FI)	(F)	(SHE)	(SILL)	מווי וויי	(III) III	Caro	20.15.		L		
09/24/93	-	DHD130A	130		9.75		13.33		09/24/93			35	30.4	15.3%

Total Drill Time = Average Penetration Rate =

9.75 Hours 13.33 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

0" North / South X 1.0" West 24.15" 27.47"

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile #679 Area "C"

	_	(CU,YD,)	30.4 15.3%
	Spec.	Concrete (CU.YD.)	35
STRUCTION	Non-Spec.	Concrete (CU.YD.)	
WALL CONS		Grout CU YD	
CUT-OFF V		Concrete	10/27/93
	te	Redrill (FT / HB)	
	Penetration Ra	Drill	13.00
		Redrill	2
	Pure Orill Time		10.00
		Redrill	
TION	Drift Footage		130
FF WALL EXCAVA	-	Excavation	Method DHD130A
0-112	Forrismen	Rig	3 #
		Drilling	Date 10/27/93

Total Drill Time == Average Penetration Rate ==

10.00 Hours 13.00 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

0.5" North X 0.5" West 27.47" 24.42" At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile #680 Area "C"

	CIT	RE WALL EXCAVA	MOIL						CUT-OFF V	VALL CONS	CONSTRUCTION			
		TACKE EXOLUTION	. 1511								Mon-Choo	Suga	Theoretical	
	-chimmen		Drill Footage		Pure Drill Time		Penetration Hate	16			NOI-Space	anar.	Howellean	
Drilling	Bis	Evestation	Die	Redrill		Redrill	E C	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
	P *	Mathod	Ę		(HRS)	(HRS)	(FT/HR)	(FT / HR)	Date	(CU.YD.)	(CV.YD.)	(CU:VD)	(CU.YD.)	
Dale	#	Menio	7. 1											
86/06/60	-	DHD130A	130		9.16		14.19		09/30/93			35	30.4	15.3%
				-										

Total Drill Time = Average Penetration Rate =

9.16 Hours 14.19 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

1.0" South X 1.5" East 24.42" 29.28" At Full Depth = Verticality Information

S-ARC North = S-ARC South =

Comments:

Quality Coring: None.

Primary Pile #681 Area "C"

		SEE WALL EYCAVA	MOIT					ľ	CUT-OFF W	VALL CONS	IRUCTION			
	5	WALL LACAN			Dura Dall Timo		Jonotration Rate				Non-Spec.	Spec.	Theoretical	
	Eduloment		DIE LOOKAGE		OLD CHILD		1						- F. F.	Santan C
Crillian	.sa	Evention	Dril	Redrill	Diil	Redrill	- E	-	Concrete	Grout	Concrete	Concrete	volume	CVBIDIBAR
2	? :	Distance of the second	Ę		(ADC)	HBC	/FT / HB	(FT / HR)	Date	(CU.YD.)	(CU.YD.)	(CU:VD)	(CU.YD.)	
Cate	#	Memod			2	2	, , , , , , , , , , , , , , , , , , ,	۱						
40,000,00	c	70	5		200		98.00		10/26/93			8	30.4	5.4%
Se/97/01			3		3									
						-		00 07	44/45/05			7,	000	20.00
11/13/93	-	DHD130A	124	124		90.00 00.00		38.7	36			3	2.53	20.00
				Contract of the Contract of th			A							

Total Drill Time = Average Penetration Rate =

5.00 Hours 26.00 Feet / Hour

Total Redrill Time = Average Penetration Rate =

9.59 Hours 12.93 Feet / Hour

Verticality Information

1.0" North X 1.25" West

29.28" At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments: Verticality cage in hole. Cavity developed on platform; backfilled with 35 cy concrete.

Secondary Pile #682 Area "C"

Overbreak 30.4 heoretical Volume (CU.YD.) 8 Spec. Concrete (CU.YD.) Non-Spec. Concrete (CU.YD.) CUT-OFF WALL CONSTRUCTION Grout (CU.YD.) 10/04/93 Concrete Date Redrill (FT / HR) enetration Rat 16.77 (FT/HR) Redrill (HRS) ure Drill Time Drill (HRS) 7.75 Drill Footage Drill (FT) 6 CUT-OFF WALL EXCAVATION Excavation Method DHD130A Rig 10/02/93 Drilling Date

15.3%

Total Drill Time =

7.75 Hours 16.77 Feet / Hour

Average Penetration Rate =

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

1.5" North X 0.5" East 27.48" 24.43" At Full Depth =

S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile #683 Area "C"

15.3% Overbreak 30.4 heoretical Volume (CU.YD.) 8 Spec. Concrete (CU.YD.) Non-Spec. Concrete (CU.YD.) CUT-OFF WALL CONSTRUCTION Grout (CU.YD.) 10/23/93 Concrete Date Redrill (FT / HR) 18.36 (FT/HR) Redrill (HRS) Pure Drill Time Drill (HRS) 7.08 Redrill (FI) Drill Footage Drill (FT) 8 CUT-OFF WALL EXCAVATION Excavation Method \$ quipment Rig 7 10/23/93 Drilling Date

Total Drill Time = Average Penetration Rate =

7.08 Hours 18.36 Feet / Hour

Total Redrill Time == Average Penetration Rate ==

None

Verticality Information

0" North / South X 0" East / West 24.43" 26.67" At Full Depth =

S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile #684 Area "C"

8.17 Hours 15.91 Feet / Hour

Total Drill Time' = Average Penetration Rate =

None

Total Redrill Time = Average Penetration Rate =

or North / South X 1.75" West 26.67" 28.09" Verticality Information

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile #685

Area "C"

		Overbreak					13.376	
	Theoretical	Volume		(.0.10.)			30.4	
	Spec.	Concrete	20000	(CU.YD.)			8	
TRUCTION	Non-Spec.		Concrete	(CC)				
WALL CONSTRUCTION			Stour					
TCUT-OFF WA			Concrete	200	Callo		10/21/93	
		Ligita	Redrill		מנו / נונו			
	Dansahmtion D	renentation	- E-C		(FI / HH)		14.05	
		•	Redrill		(HRS)			
	1	Pure Drill Ime	III.C		HRS		9.25	
			Dodrill					
110	NO	I Drill Footsde	-	5	<u> </u>		130	
	IFF WALL EXCAVE			Excavation	Method		DHD130A	
	COL -O	and and	Ednibiliai	ğ)*	-	N	
•				Drilling	Date of	Dale	10/21/93	

Total Drill Time = Average Penetration Rate =

9.25 Hours 14.05 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

1.0" North X 0.25" West 28.09" 25.08"

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile #686

Area "C"

		Oroshrook	NE CIPACI			12.0%	
	Theoretical	Vohimo		20.10		30.4	
	Snor	3	Concient	(CO.10.)		34	
STRUCTION	Man Coop	NOTI SPOR	Concrete	(CO.YU.)			
ICUT-OFF WALL CONSTRUCTION			Grout				
ICUT-OFF			Concrete	Date		10/07/93	
		- 1	Redrill	(FT/HR)			
		Penetration Rate	Drill	(FT / HR)		10.40	
			Redrill	(HRS)			
	-	Pure Drill Time	Dill	(HPS)		12.50	
			Redrill	Œ			
14011	202	Drill Footage	Drill	<u></u>		130	
THE COLUMN THE PARTY OF THE PAR	OFF WALL EXCAVA	Ť.	Evenation	Mathod	Menion	DHD130A	
		Couriemo	Dio Dio	2	*		
					Date	10/07/93	

12.50 Hours 10.40 Feet / Hour

Total Drill Time = Average Penetration Rate =

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

o" North / South X 2.5" East 25.08" 22.00"

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile #687

Area "C"

		Overhead				16.9%	
	Theoretical	Volume		17117		30.4	
	Spec	- Constitution	Colicient	(71,02)		35.5	
STRUCTION	Non-Snec	100	Concrete	(CU,YU.)			
TCUT OFF WALL CONSTRUCTION		•	Grout	(CU.YD.)			
CUT-OFF			Concrete	Date		01/21/94	
		١	Redrill	(FT / HR)			
		Penetration Hate	Drill	(FT / HR)		27.84	
			Redrill	HRS	2 11 11		
		Pure Drill Time	Drill	(HDC)	2	4.67	
			Redrill	Ę			
INO.	NO	I Drill Footage	Dig.			130	
AVA COM LINES MAIN	JEE WALL EXCAVE	*	Evenation	- Transport	Memod	DHD130A	
	7-100	Common	Dia	ב ב	*	-	
			11.0	BUILD	Date	01/21/94	

Total Drill Time ≂ Average Penetration Rate =

4.67 Hours 27.84 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

3.0" South X 0" East / West 22.00" 30.59" At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile #688

Area "D"

ם מפוע		AVA CALL FACAVA	HON						CUT-OFF WALL CONSTRUCTION	WALL CONS	TRUCTION			
	2-100	JEE WALL EXCAVA			- 61						Non-Snec	Spec.	Theoretical	
	Fourinment	-	Drill Footage		Pure Drill I me		Penetration hate	- 1				Control	Volumo	Charhrank
Drilling	Rig	ă	Drill	Redrill	Drill	Redrill		Redrill	Concrete	Grout	(Cit YD.)	(CU.YD.)	(CU.YD.)	Name of the second
Date	*	Method	(FI)	Œ	(HHS)	(SHE)	ובו / חום	ALL / LLD	Calo	20.10.				
00,000	Ī	AUD 430A	130		9.45		13.76		01/01/00		9		30.4	-80.2%
08/80/0L	_		3			1		,,,,	40/47/03	Ş			7.0	328.2%
12/17/93	-	DHD130A	8	8		1.75		17.14	26/1/20	3				
01/12/94	-	DHD130A	130	130		2.66		48.87	01/13/94			36.5	30.4	20.2%

9.45 Hours 13.76 Feet / Hour Total Drill Time = Average Penetration Rate =

4.41 Hours 36.28 Feet / Hour Total Redrill Time = Average Penetration Rate =

Verticality Information

0" North / South X 2.5" East 30.59" 20.71" At Full Depth = S-ARC North =

S-ARC South =

Quality Coring: None.

Comments: Hole caved in to 22' after drilling to 130' on 10/9/93. Placed 6cy of concrete Hole connected with hole 672

Primary Pile #689

	Theoretical	Vetime - Orotonek	Volume	20.100	14.9 7.1%	30.4 13.6%	30.4 13.6%	
	L		Concrete	-		34.5	24.5	
STRUCTION	Mon Choo	NOI SPACE	Concrete	(CO.TD.)				
WALL CONST			Grout	(CO.YO.)	16			
CLIT-OFF V			Concrete	Date	01/25/94	02/14/94	101000	16/15/20
			Redrill	(FT / HR)		28.44		
		Penetration Hate	Drill	(FT / HB)	21.99	23.57		
			Redrill	(HRS)		2.25		
		Pure Drill Time	Drill	(HRS)	2.91	280	ì	7.00
			Redrill	Œ		2	5	
	NOI	Drill Footage	Drill	Œ	150	139	3	130
	FF WALL EXCAVA		Excavation	Method	DHD1304	5 5	AL-24	DHD130A
	0-100	Fourier	Bio	°*	-	- ,	-	8
Area "U"			Drilling	Date	04104/04	15/15/10	02/11/94	02/23/94

5.71 Hours 22.77 Feet / Hour Average Penetration Rate = Total Drill Time =

2.25 Hours 28.44 Feet / Hour Total Redrill Time = Average Penetration Rate =

Verticality Information

3.5" South X.2.0" West 20.71" 31.29" At Full Depth =

S-ARC North = S-ARC South =

Quality Coring: None.

Comments: Hole redrilled accidentaly by contractor on 2/23/94

Secondary Pile #690 Area "D"

	OIT-O	FE WALL EXCAVA	NOIT						CUT-OFF V	WALL CONS	TRUCTION			
		THE PROPERTY			٠.		0				Mon-Sper	Snor	Theoretical	
	Forment	=	Drill Footage		Pure Drill I me		Penetration Hate	9			NOTICE SPORT	3		
Drilling		Evestation	Diil	Redrill	Drill	Redrill	Di.	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
	2 4	Mothod	Ę	Ę	HRS	(HRS)	(FT / HR)	(FT / HR)	Date	(CC.YD.)	(CU.YD.)	(CN:NO)	(CU.YD.)	
Date	#	Мешо												
10/15/03	•	DHD130A	8		5.88		15.99		10/15/93		152		22.0	13.9%
200														
01/31/94	-	DHD130A	130	35	2.00	3.35	18.00	28.06	02/01/94			34.5	30.4	13.6%

Total Drill Time =

7.88 Hours 16.50 Feet / Hour

Average Penetration Rate =

3.35 Hours 28.06 Feet / Hour

Total Redrill Time = Average Penetration Rate =

At Full Depth = Verticality Information

0" North / South X 0" East / West

31.29" 21.92"

S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

10/15/93 depth of concrete placement = 30°; sinkhole developed took 23 cy on upstream, 2nd sinkhole on downstream side of rig took 29 cy.

Primary Pile #691

Area "D"

		Overbreak		ì	14.2%	18.6%	
	Theoretical	Volume			0.41	30.4	
	Spec.	Concrete	(AA: D:)			98	3
TRUCTION	Non-Spec.	Concrete	77.77		16		
WALL CONS		Grout	10.10				
CUT-OFF		Concrete	Agie		01/27/94	10/16/04	
		Redrill	(FI / HH)			14 71	
	Penetration Rate		(FI / HH)		18.93	26 46	
		Redrill	(HHS)			90	90.4
	Pure Drill Time	Drill	(HRS)		3.17	8	1.92
		_					8
TION	Drill Footage		<u>E</u>				05
F WALL EXCAVA		Excavation	Method		DHD130A		XL-24
CUT-O	Equipment	Rig	*		-	•	8
		Drilling	Date		01/26/94		02/15/94

Total Drill Time == Average Penetration Rate ==

5.09 Hours 25.54 Feet / Hour

Total Redrill Time = Average Penetration Rate =

4.08 Hours 14.71 Feet / Hour

Verticality Information

3.0" South X 3.0" West At Full Depth =

21.92" 29.16" S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile #692 Area "D"

	1	TENEVALLE EVENING	HON						CUT-OFF V	VALL CONS	TRUCTION			
		LL WALL EACAVA	202								11	Chan	Theoretical	
	Follower		Drill Footage		Pure Drill Time		Penetration Rate	t			Non-spec.	dog.	Hadrana	
D.Him	5	Evention	Diil	Redriff	Drill	Redrill		Redrill	Concrete	Grout	Concrete	Concrete	Volume	CVerbreak
	ĵ.	Mathod	, E	Ę	(HRS)	HRS	(FT / HR)	(FT / HR)	Date	(CU.YD.)	(CC.XD.)	(CU.YD.)	(CU.YD.)	
Date	#	Menion												
01/24/94	-	DHD130A	88		3.16		20.57		01/24/94	88			15.2	295.3%
to lead to												3 90	700	700 000
02/03/94	_	XL-24	130	65	2.87	0.97	22.65	67.01	02/04/94			0.00	t S	20.5

Total Drill Time =

6.03 Hours 21.56 Feet / Hour

Average Penetration Rate =

Total Redrill Time = Average Penetration Rate =

0.97 Hours 67.01 Feet / Hour

Verticality Information

1.0" South X 0.25" East

At Full Depth = S-ARC North = S-ARC South =

29.16° 28.70°

Quality Coring: None.

Comments: Connected with pile 717. Both holes 692 & 717 filled simultaneously with grout - 60 cy total.

Primary Pile #693

Area "D"

	le ilea	_	Volume	YD.)		14.7 22.4%		30.4 13.6%	
	Ľ			4				34.5	
	ŀ	_	Concrete						
STRUCTION	Mon. Chor	NOT SPOR	Concrete	(CU.VD.)					
WALL CON			Grout			18			
ICUT-OFF W		_	Concrete		-	01/29/93	20/20/10	46/22/20	
			Redrill	(FT / HR)				36.38	
		Penetration Hate	Drill	(F) HB		20.00	3	23 10	
		on.	Redrill	HPS	2011			.69	
		Pure Drill Time	Dril	HPC	2	8	70.7	38	
			Redrill	6				S	
METION	NOIL	Drill Footage	Diil	Ę	(11)		3	*	000
CENANT EVOAVA	FF WALL EACH		Evestation	Market	Method		DHUTSON	5	XL-24
1	0-100	Fourinmen	, id	P :	*		-	(2
_			Orillian	5	Date		01/28/94		02/22/94

Total Drill Time =

5.52 Hours 23.55 Feet / Hour

Average Penetration Rate =

1.60 Hours 39.38 Feet / Hour

Verticality Information

Total Redrill Time = Average Penetration Rate =

0.5" North X 2.5" East 28.70" At Full Depth =

26.01" S-ARC North = S-ARC South =

Quality Coring: None.

1/29/93 18 cu. yds. in pile, 48 cu. yds. for platform collapse, near pile 695 upstream of wall. Comments:

Secondary Pile #694 Area "D"

	11.0	ALL DAY ON	TION						CUT-OFF V	WALL CONS	TRUCTION			
		JEE WALL EXCAVE	NOIN								1000	Snoo	Thorrotinal	
	Commission	41	Drill Footage		Pure Drill Time		Penetration Kate	9			Non-spec.	300	i i concentration	
	SILICION -	11			-		7	Dodrill	Constants	-	Concrete	Concrete	Volume	
Drilling	Ric	Excavation	Dul	Hedri	5	Hedri	5		מומומומ				1	
2	D #	Mathod	٤	Œ	(HRS)	(HRS)	(FT / HR)	FI/HR)	Date	(CU.VD.)	CO.YU.)	20.10.	20.00	
Care	*	MONION												
			i.		3		4 8		01/26/94	18			13.8	30.6%
01/25/94	_	DHD130A	8		4.35									
		1.00		i	1	1	17.00	30 45	A0/4E/04			75	30.4	12.0%
02/15/94	-	XL-24	8	20	3.97	1./8	80.7	3	1000					

Total Drill Time = Average Penetration Rate =

8.89 Hours 14.62 Feet / Hour

1.78 Hours 33.15 Feet / Hour

Verticality Information

Total Redrill Time = Average Penetration Rate =

or North / South X 1.5" East 26.01" 23.70" At Full Depth =

S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile #695 Area "D"

•	1	TELLINAL POOR	NO!						CUT-OFF V	VALL CONS	TRUCTION			1
	ラーこう	FF WALL EXCAVE	NOIS								Mon Choo	Coor	Theoretical	
	the month	1	Drill Footage		Pure Drill Time		Penetration Hate	ıte			MOI-Spec.	apar.		4
	CONTRACT						200	Dodrill	Concrete	Grout	Concrete	Concrete	Volume	CVerbreak
Drilling	Rig	Excavation		Hedri	5	III Dec				5	5		CIAIC	
Date	*	Method	Œ	E	(HRS)	(HRS)	FT/HR)	(FI / HH)	Date	(70.10.)	100.100	7.7.7	100.100	
														44.00
A0/00/00	-	DHD130A	8		3.50		17.14		02/02/94	9			0.4	
100000	c	V - 1X	55	8	282	1.58	23.97	37.97	02/26/94			36.3	4.00	29.679
3/07/70	V	VF-24	3	}										

Total Drill Time = Average Penetration Rate =

6.42 Hours 20.25 Feet / Hour

Total Redrill Time = Average Penetration Rate =

1.58 Hours 37.97 Feet / Hour

Verticality Information

1.75" South X 2.5" West At Full Depth = S-ARC North = S-ARC South =

23.70° 26.49°

Quality Coring: None.

Secondary Pile #696

	11.0		HON						CUT-OFF V	VALL CONS	TRUCTION			
		THE WALL EACAVE	NO.								Mon Coo	Snor	Theorotical	
	Costinonon		Drill Footade		Pure Drill Time		Penetration Hate	- 1			NOT Spec.	2000		
	Dillon-		E	7	=	Dodrill	-	Dedrill	Concrete	Grant	Concrete	Concrete	Volume	Cveroreax
Drilling	Ba	Excavation	5	Hedri	5		5		2000		9	5		
2	7	Mathod	Ę	٤	HBS	ERS)	EH/HB	(FI/HH)	Date	(.0.70.)	(.07.00)	CO. 10.	(.0.10.)	
Date	#	Menio												
					-				70/00/70	ţ			10.3	16.8%
01/27/94	-	DHD130A	4		3.27		13.45		\$6/07/10	7				
												,	100	15.70%
02/18/94	8	DHD130A	130	4	5.83	1.92	14.75	22.92	48/91/20			3	Š	200

9.10 Hours 14.29 Feet / Hour

Total Drill Time = Average Penetration Rate =

1.92 Hours 22.92 Feet / Hour

Total Redrill Time = Average Penetration Rate =

Verticality Information

1.75" South X 0.5" East

At Full Depth = S-ARC North = S-ARC South =

26.49° 28.30°

Quality Coring: None.

Comments: Connectedwith pile 720

Primary Pile #697 Area "D"

13.6% 45.2% Overbreak 30.4 13.8 Theoretical Volume (CU.YD.) 34.5 Spec. Concrete (CU.YD.) Non-Spec. Concrete (CU.YD.) CUT-OFF WALL CONSTRUCTION 8 Grout (CU.YD.) 02/11/94 03/03/94 Concrete Date 18.91 Redrill (FT / HR) Penetration Rate Drill (FT / HR) 14.75 15.07 3.12 Redrill (HRS) Pure Drill Time Drill (HRS) 4.71 4.00 ස Redrill (F) ll Footage Drill (FT) 130 8 CUT-OFF WALL EXCAVATION Excavation Method DHD130A DHD130A Rig N 02/11/94 03/02/94 Drilling Date

Total Drill Time = Average Penetration Rate =

8.71 Hours 14.93 Feet / Hour

3.12 Hours 18.91 Feet / Hour

Verticality Information

Average Penetration Rate =

Total Redrill Time =

0.5" South X 2.0" West 28.30" At Full Depth =

33.84" S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile #698 Area "D"

	TIO	TEE WALL EXCAVE	MOITS						CUT-OFF W	VALL CONS	TRUCTION			
		THE PROVE	Drill Footage		Pure Drill Time		Penetration Rate	te			Non-Spec.	Spec.	Theoretical	
Drilling	Rig	, ğ	lie (Redrill	Orill	Redrill	Drill (FT / HR)	Redrill (FT / HR)	Concrete	Grout (CU.YD.)	Concrete (CU.YD.)	Concrete (CU.YD.)	Volume (CU.YD.)	Overbreak
Date	*	Memod	(41)		2	2								
02/03/94	-	DHD130A	99		5.08		11.81		02/03/94	16			14.0	14.2%
02/23/94	2	XL-24	130	8	3.40	0.93	20.59	64.52	02/23/94			35.5	30.4	16.9%

8.48 Hours 15.33 Feet / Hour

Total Drill Time = Average Penetration Rate =

0.93 Hours 64.52 Feet / Hour

Total Redrill Time = Average Penetration Rate =

Verticality Information

5.0" North X 3.0" West 33.84" 20.38"

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile #699 Area "D"

		FE WALL EYOAV	MOIT						CUT-OFF V	WALL CONS	TRUCTION			
		A NOTE TOOLS	Drill Footage		Pure Drill Time		Penetration Rate	te			Non-Spec.	Spec.	Theoretical	
Drilling	Rig	Q,	E (Redrill	Drill	Redrill	Drill GT / Ta	Redrill (FT / HB)	Concrete	Grout	Concrete (CU.YD.)	Concrete (CU.YD.)	Volume (CU.YD.)	Overbreak
Date	*	Method	(FI)		22	CHIL	TULL III		Caro	100				
02/14/94	-	DHD130A	장		3.17		17.03		02/14/94	ţ.			126	19.0%
02/28/94	2	DHD130A	130	¥	4.60	2.07	16.52	26.09	03/01/94	,		32.5	30.4	7.1%

Total Drill Time = Average Penetration Rate =

7.77 Hours 16.73 Feet / Hour

2.07 Hours 26.09 Feet / Hour

Total Redrill Time = Average Penetration Rate ==

Verticality Information

1.0" North X 1.0" West

20.38" 26.04"

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile #700 Area "D"

	CIII-O	PE WALL EXCAVA	NOIL						CUT-OFF V	VALL CONS	TRUCTION			
	Forning	1	Drill Footage		Pure Drill Time		Penetration Rate	e e			Non-Spec.	Spec.	Theoretical	
Drilling	Bio	Excavation	Drill	Redrill	Orill	Redrill	Drill	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
Date	? *	Method	<u></u>	Œ	(HRS)	(HRS)	(FT / HR)	(FI/HR)	Date	(CU:YD:)	(CU.YD.)	(CU.YD.)	(CU.VD.)	
02/05/94	-	DHD130A	R		6.58		9.45		02/05/94	16			14.5	10.5%
02/22/94	2	DHD130A	131	8	4.58	2.58	15.07	24.03	02/22/94			8	30.6	11.1%

11.16 Hours 11.74 Feet / Hour

Total Drill Time = Average Penetration Rate =

2.58 Hours 24.03 Feet / Hour

Total Redrill Time = Average Penetration Rate =

At Full Depth = S-ARC North = S-ARC South = Verticality Information

0.5" North X 1.5" West 26.04" 29.45"

Quality Coring: None.

Comments:

Primary Pile #701 Area "D"

	_	Overbreak		15.2 18.6%	30.4 15.3%	
	_	Volume (CU.YD.)			35	
	Spec	Concrete (CU.YD.)				
STRUCTION	Non-Spec.	Concrete (CU.YD.)				
WALL CON		Grout (CU.YD.)		18		
CUT-OFF		Concrete Date		02/16/94	02/26/94	
		Redrill (FT / HR)			20.31	
	Penetration Rate	Drill (FT / HR)		17.11	12.26	
		Redrill			3.20	
	Pure Drill Time	Drill (HRS)		3.80	5.30	
		Redrill			65	
VTION	Drill Footage			æ	130	
FF WALL EXCAVA		Excavation	Politoni	XL-24	DHD130A	The state of the s
cut-o	апртел	Bj.≉	*	8	8	
		Drilling	Dale	02/16/94	02/26/94	

Total Drill Time = Average Penetration Rate =

9.10 Hours 14.29 Feet / Hour

Total Redrill Time = Average Penetration Rate =

3.20 Hours 20.31 Feet / Hour

Verticality Information

2.5" North X 0.5" West At Full Depth = S-ARC North = S-ARC South =

29.45" 26.02"

Quality Coring: None.

Secondary Pile #702 Area "D"

	1	CE WALL EYCAVA	NOIT						CUT-OFF V	VALL CONS	TRUCTION			
		THE TYPE	Drill Footbade		Pure Drill Time		Penetration Rate	ite			Non-Spec.	Spec.	Theoretical	
Drilling	Rid	Excavation	Drill	Redrill		Redrill	Drill	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
Date	*	Method	Œ	Œ	(HRS)	(HRS)	(FT/HR)	(F1 / HH)	Date	(CU.YD.)	(CO.10.)	20.10.	20.00	
10/18/93	8	240	31		1.00		31.00		10/19/93		13		7.2	79.6%
02/03/94		DHD130A	8	31	0.17	1.50	11.76	20.67	02/04/94	8			7.7	289.3%
02/19/94	8	DHD130A	130	33	5.37	1.22	18.06	27.05	02/19/94			35	30.4	15.3%

6.54 Hours 19.88 Feet / Hour Total Drill Time = Average Penetration Rate =

2.72 Hours 23.53 Feet / Hour Total Redrill Time = Average Penetration Rate =

Verticality Information

2.0" North X 0.5" East

26.02 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments: Connected with pile 709, both piles 702 & 709 filled simultaneously with grout

Primary Pile #703 Area "D"

-	1110	VEE WALL EYOAVA	NOIL						CUT-OFF V	:UT-OFF WALL CONSTRUCTION	TRUCTION			
	21 - 23	THE WALL CAUSE									Alon Cnon	Char	Theoretical	
	-cui inmont	1	Drill Footage		Pure Drill Time		Penetration Hate	-			MOII-Spec.	3		A Transport
Drilling	Rig	Excavation	Drill	Redrill	ll C	Redrill	Drill	Redrill	Concrete	Grout	Concrete	Concrete (CU.YD.)	(CU.YD.)	CVelipicals
Date	*	Method	E	(F1)	HKS	(CHE)	UU / 1.1	(111)	Caro	100				
00/11/04	_	DHD130A	25		4.58		11.35		02/11/94	53			121	105.9%
100											_	8	7 00	2 40%
03/03/94	2	DHD130A	130	22	00.9	3.00	13.00	17.33	03/04/94			k	30.	Pro-

10.58 Hours 12.29 Feet / Hour Average Penetration Rate = Total Drill Time =

3.00 Hours 17.33 Feet / Hour Total Redrill Time = Average Penetration Rate =

Verticality Information

0.5" South X 0" East / West

23.81" At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile #704 Area "D"

	CUT-0	OFF WALL EXCAVA	VIION						CUT-OFF WA	VALL CONS	TRUCTION			
	Company		Drill Footage		Oure Drill Time		enetration Rate	6			Non-Spec.	Spec.	Theoretical	
Drilling	Rig	Q.	<u>E</u>	Redrill	Drill	Redrill	Drill (FT / HP)	Redrill (FT / HR)	Concrete	Grout	Concrete (CU.YD.)	Concrete (CU.YD.)	Volume (CU.YD.)	Overbreak
Cate	*	метоа	(11)		2	2							0.07	1
10/13/94	-	DHD130A	44		6.17		7.13		10/13/94		80		10.3	75.5%
02/02/94	-	DHD130A	27	27		1.42	19.01	19.01	02/02/94	24			6.3	280.7%
02/15/94	2	XL-24	88	4	1.17	0.83	17.95	53.01	02/15/94	55		,,	15.2	64.7%
02/23/94	8	XL-24	130	85	2.84	1.00	22.89	65.00	02/23/94			36	30.4	18.6%

Total Drill Time = Average Penetration Rate ==

10.18 Hours 12.77 Feet / Hour

3.25 Hours 41.85 Feet / Hour

Total Redrill Time = Average Penetration Rate =

At Full Depth = Verticality Information

2.5" South X 0.25" East

23.81" 30.14" S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile #705 Area "D"

heoretical Volume (CU.YD.) B Spec. Concrete (CU.YD.) T-OFF WALL CONSTRUCTION

| Non-Spec. | Concrete | Grout | Concrete | Grout | Concrete | CU.YD.) | CU.YD.) 8 02/08/94 03/02/94 Concrete Date 21.71 Redrill (FT / HR) Penetration Rate
Orill
(FT / HR) 14.35 16.51 2.81 Redrill (HRS) Pure Drill Time Drill (HRS) 4.18 4.25 61 Redrill (FT) Drill Footage Drill (FT) 8 5 CUT-OFF WALL EXCAVATION Excavation DHD130A DHD130A 8 02/08/94 03/02/94 Drilling Date

40.4% 15.3%

14.2 30.4

Overbreak

Average Penetration Rate = Total Drill Time =

8.43 Hours 15.42 Feet / Hour

2.81 Hours 21.71 Feet / Hour

Total Redrill Time = Average Penetration Rate =

O" North / South X O' East / West At Full Depth = Verticality Information

30.14" 25.27" S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile #706 Area "D"

	(± 10	ALL MAINTER	THOUSE IN						CLIT OFF WALL CONCTO	ONCO LIVE	TOILOTION			
		JEE WALL EXCAVE	201							VALL COIN	201001			
	Equipmen	14	Drill Footage		Pure Drill Time		Penetration Rate				Non-Spec.	Spec.	Theoretical	
Drilling	Rid	Excavation	E C	Redrill	Drill	Redrill		Redrill	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
Date	*	Method	Œ	Œ	(HRS)	(HRS)	(FT / HR)	(FT / HR)	Date	(CU.YD.)	(CU.YD.)	(CU.YD.)	(CU.YD.)	
20/06/00	-	DHD130A	130		42.90		10.06		86/06/60			38	30.4	15.3%
00/20/00	•		2											

12.92 Hours 10.06 Feet / Hour

Total Drill Time = Average Penetration Rate =

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

1.0" South X 1.0" West 25.27" 25.29" At Full Depth =

S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile #707 Area "D"

ioment	Ţ Š	ALL EXCAVA	TION Drill Footage		Pure Drill Time		Penetration Ra	e	CUT-OFF	CUT OFF WALL CONSTRUCTION	Non-Spec.	Spec.	Theoretical	
Πα: ₄₈	£*	Excavation	E C	Redrill (FT)	Drill (HRS)	Redrill (HRS)	Drill (FT / HR)	Redrill (FT / HR)	Concrete Date	Grout (CU.YD.)	Concrete (CU.YD.)	Concrete (CU.YD.)	Volume (CU.YD.)	Overbreak
11	-	DHD130A	22		5.41		10.54		01/27/94	#			13.3	-17.4%
	8	XL-24	130	. 57	2.90	1.27	25.17	44.88	02/26/94			8	30.4	8.7%

8.31 Hours 15.64 Feet / Hour

Total Drill Time = Average Penetration Rate =

1.27 Hours 44.88 Feet / Hour

Total Redrill Time ≕ Average Penetration Rate =

2.0" South X 0" East / West 25.29" 28.83" At Full Depth = S-ARC North = S-ARC South = Verticality Information

Quality Coring: None.

Secondary Pile #708 Area "D"

		Overbreak		28.5%
	Theoretical	Volume	(CO. 1D.)	30.4
	Spec.	Concrete	(CO.LD.)	88
STRUCTION	Non-Spec.	Concrete	(CU,YD.)	
F-OFF WALL CONSTRUCTION		Grout	(CU.YU.)	
CUT-OFF		Concrete	Date	09/23/93
		Redrill	(FI / HH)	
	Penetration Rate	Orill	(FT / HR)	11.06
		Redrill	(HRS)	
	Pure Drill Time	Drill	(HRS)	11.75
		Redrill	딘	
ATION	Drill Footage	Diel	E	130
-OFF WALL EXCAVA	1	Excavation	Method	DHD130A
CUT-C	Equipment	Bg.	*	3 1
3 2 2		Drilling	Date	09/23/93

Total Drill Time = Average Penetration Rate =

11.75 Hours 11.06 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

28.83" 30.14" S-ARC North = S-ARC South =

At Full Depth =

0.5" South X 0" East / West

Quality Coring: None.

Comments:

Primary Pile #709

								NOTITE OFF WALL CONDITIONS	OINOC LIVA	TO TOTAL			
ī	I-OFF WALL EXCAVATION	ATION						710100	VALL COINS	אַסווסטיין			
quipment		Drill Footage		Ure Drill Time		Penetration Rate	te			Non-Spec.	Spec.	Theoretical	
	Excavation	Drill	Redrill	Drill	Redrill	Drill	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
	Method	(FT)	Œ	(HRS)	(HRS)	(FT/HR)	(FT / HR)	Date	(CU.YD.)	(CU.VD.)	(CU.YD.)	(cu.vp.)	
I	DHD130A	25		1.57		15.92		01/26/94	12			5.8	105.6%
	DHD130A	88	25	0.18	0.25	16.67	100.00	01/29/93	15			6.5	129.4%
	DHD130A	8	28	90.08	0.67	25.00	41.79	02/04/94	60			7.0	14.2%
	DHD30	8	8	3.20	1.80	10.00	16.67	02/08/94	8			14.5	52.0%
N	XL-24	130	8	6.75	1.17	10.07	52.99	02/18/94			34	30.4	12.0%

Total Drill Time = Average Penetration Rate =

11.78 Hours 11.04 Feet / Hour

3.89 Hours 37.28 Feet / Hour Total Redrill Time = Average Penetration Rate =

Verticality Information

2.0" North X 0.5" East

30.14" 23.00" At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments: Cavity at 25', Connected with pile 702 while grouting on 02/04/94

Secondary Pile #710 Area "D"

		Overbreak			4 15.3%	
	Theoretical	Volume	(CU.YD.)		30.4	
	Spec.	Concrete	(CU.YD.)		35	
LL CONSTRUCTION	Non-Spec.	Concrete	(CU.YD.)			
≸		4		1000		
CUT-OFF V		-	Concrete	2000	10/02/93	
	ite	1	Hedrill (FT / HB)	(111)		
	Penetration Rate			GII / LA	5.75	
			Redrill	(SUL)		
	Darro Drill Timo	Ξ1.		2	22.59	
			Redrill	(F)		
NOIT	100	DIIII FOOGSGE	Drill	(FI)	130	
T OFF WALLEYCAVA	-	1	Excavation	Method	DHD130A	
	7	Equipmen	Rig	*	-	
			Drilling	Date	10/01/93	

Total Drill Time = Average Penetration Rate =

22.59 Hours 5.75 Feet / Hour

Total Redrill Time = Average Penetration Rate =

Verticality Information

0.5" South X 0" East / West 23.00" 25.30" S-ARC North = S-ARC South = At Full Depth =

Quality Coring: None.

Comments:

Primary Pile #711 Area "D"

1	OFF WALL EVEN	MITION						CUT-OFF WALL	NALL CONS	TRUCTION			
1	OFF WALL EACAY.	NO.								Non-Cnor	Snor	Theoretical	
Ě	inment	Drill Footage		Pure Drill Time		Penetration Hate	_!			300	3	Web in	American
.5	Evention	Diric	Redrill	Diil	Redrill	Dije.	Redrill	Concrete	Grout	Concrete	Concrete	Volume	CVEIDIGER
70	Method	E	Œ	(HRS)	(HRS)	(FT/HR)	(FT/HR)	Date	(CU.YD.)	(CU.YD.)	(CU.YU.)	(CO.YD.)	
				90		14 05		105/94	8			14.2	40.4%
	1 DHD130A	6		90.4		ř							
	1 DHD130A	130	61	6.33	283	10.90	21.55	02/01/94			32.5	30.4	7.1%

Total Drill Time = Average Penetration Rate =

10.41 Hours 12.49 Feet / Hour

Total Redrill Time = Averåge Penetration Rate =

2.83 Hours 21.55 Feet / Hour

Verticality Information

1.5' South X 0' East / West 25.30' 24.49'

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile #712 Area "D"

			Cverbreak				20.2%	
	Theoretical	_	Norma	5	(20.10.)		30.4	
	Snec		Concrete	2	(CO.10.)		36.5	
TRUCTION	Non-Spec	Mail open.	Concrete	1000	(CU.YD.)			
UT-OFF WALL CONSTRUCTION			Grout		(CC.YD.)			
CUT-OFF			Concrete		Date		10/05/93	
		1	Redrill	1	(FT/HR)			
	0	Penetration Hate	Diil		F / HB)		7.50	
			Redrill		(HRS)			
		Pure Dull Ime	Diil		(HBS)		17.33	
			Radrill		٤			
NOIT		Drill Footage	1100	2	٤		130	
EF WALL EXCAVA	TANCE CACALL	-	Committee	CXCavallOI	Mathod	Michiga	DHD130A	
T 10		Fortingent	Ċ	2	, 4	#	3	
					2	Dale	10/05/93	

17.33 Hours 7.50 Feet / Hour

Total Drill Time ≔ Average Penetration Rate =

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

3.0° South X 1.5° West 24.49° 30.75° At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile #713

Perfettation Rate Concrete CountyD.) CU,YD.) CU,YD	OLIT OFF WALL EXCAVATION	SEEWALL EXCAVATION	NOIT	1			i		CUT-OFF V	VALL CONS	TRUCTION			
Concrete Concrete Concrete Concrete Concrete Concrete Concrete Concrete Concrete Concrete Concrete Councrete Cou	COL OF WALL EXCAVATION	I Dell Exchan					Penetration Re	i e			Non-Spec.	Spec.	Theoretical	
(FT/HR) (FT/HR) Date (CU/YD.)					-	odvill.		1	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
17.60 02/08/94 8.2 10.3 19.00 02/21/94 25 8.9 1 27.50 42.72 02/24/94 25 15.4 24.81 49.62 03/10/94 34.5 30.4	Hig Excavation Unit reduit Util	THESE THESE	(FT) (HBS)	HRS		HRS	(FT/HR)	(FT / HB)	Date	(CU.YD.)	(CU.YD.)	(CU.YD.)	(CU.YD.)	
27.50 42.72 02/24/94 25 8.9 15.4 24.81 49.62 03/10/94 25 30.4	77	77		250	250		17.60		02/08/94	8.2			10.3	-20.2%
27.50 42.72 02/24/94 25 15.4 24.81 49.62 03/10/94 34.5 30.4				3	3					1			. 0	707
27.50 42.72 02/24/94 25 15.4 24.81 49.62 03/10/94 34.5 30.4	2 DHD130A 38 38	88		88		2.00		19.00		8			n Ö	101.7%
24.81 49.62 03/10/94 34.5 30.4	2 DHD130A 66 44 0.80	99	44		0.80	1.03				23			15.4	82.2%
	2 XL-24 130 66 2.58	130	88		2.58	1.33						34.5		13.6%

Total Drill Time = Average Penetration Rate =

5.88 Hours 22.11 Feet / Hour

4.36 Hours 33.94 Feet / Hour

Total Redrill Time = Average Penetration Rate =

Verticality Information

0" North / South X 0.25" West 30.75" 25.21"

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments: Connected with pile 719

Secondary Pile #714

Area "D"

- מסוכ מסוכ	TIO	CLIT OFF WALL EXCAVATION	ATION						CUT-OFF WALL CONSTRUCTION	VALL CONS	TRUCTION			
		יר עארר באטעי					Denotembion Date	9			Non-Spac	Spec	Theoretical	
	Equipment		Drill Footage		Pure Unil I me	T	enerration ha				india don.		14-1-1	A THE PERSON
Drilling	Rig	m	Drill	Redriff	Ori	Redrill		Redrill	Concrete	Grout	Concrete	Concrete	CCLVID	Overbreak
Date	*	Method	(FI)	Œ	(SHH)	(ARS)	(LI / HH)	ונו / וווו	Dale	20.10.1	20.10.		1.2.1.2.1	
10/06/93	-	DHD130A	95		3.75		13.33		10/09/93		24		11.7	105.6%
10/19/93	8	DHD130A	123	S	6.58	4.17	11.09	11.99	10/14/93		98		28.7	25.3%
01/22/94	-	DHD130A	27	27		1.50		18.00	01/22/94	8			6.3	851.6%
01/27/94	-	DHD130A	46	46		1.83		25.14	01/27/94	ਲ			10.7	216.5%
02/12/94	-	XL-24	55	55		1.58		34.81	02/14/94	47			12.8	265.9%
02/28/94	-	XL-24	130	123	1.25	6.25	5.60	19.68	02/28/94			38	30.4	25.2%

Average Penetration Rate = Total Drill Time =

11.58 Hours 11.23 Feet / Hour

15.33 Hours 19.63 Feet / Hour Total Redrill Time = Average Penetration Rate = Verticality Information

1.0" South X 1.5" East At Full Depth =

25.21" 31.77" S-ARC South = S-ARC North =

Quality Coring: None.

Comments: The side of hole upstream caved as hole was drilled past overburden trench causing a cave in side of hole. Cavity 42-50', lost circulation at 49'. Caved in from 123' to 15 feet on 10/19/93. Platform collapsed upstream requiring 99 cy of grout to fill.

Primary Pile #715

Area "U"											100,000			
	CIT-0	DEF WALL EXCAVA	VOIT						CUT-OFF V	VALL CONS	THUCTION			
	Fortiment	-	Drill Footage		Pure Drill Time		Penetration Rate	ite			Non-Spec.	Spec.	Theoretical	
Drilling	Rig	Ð,	Drill	Redrill	Drie C	Redrill	Dill	Redrill	Concrete	Grout	Concrete	Concrete (CU YD)	(CU.YD.)	Overbreak
Date	#	Method	Œ		CHL)	CALL.	MIL / III		Dailo					
01/29/94	-	DHD130A	43						02/02/94	18			10.0	79.3%
03/04/94	2	XL-24	130	43					03/05/94			8	30.4	8.7%

Average Penetration Rate = Total Drill Time =

Hours Feet / Hour

Hours Feet / Hour

Average Penetration Rate = Total Redrill Time =

3.0" North X 4.5" East At Full Depth = Verticality Information

31.77" 20.88" S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile #716 Area "D"

18.6% Overbreak 30.4 Theoretical Volume (CU.YD.) 8 Spec. Concrete (CU.YD.) CUT-OFF WALL CONSTRUCTION
Concrete Grout Concrete
Date (CU.YD.) (CU.YD.) 10/12/93 Concrete Date (FT/HR) Penetration Rate Drill (FT / HR) 15.76 Redrill (HRS) Pure Drill Time Drill (HRS) 8.25 Fedrill (F) Drill Footage Drill (FT) 8 -OFF WALL EXCAVATION Excavation **DHD130A** Method quipment Rig 10/11/93 Drilling Date

Total Drill Time = Average Penetration Rate =

8.25 Hours 15.76 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

0" North / South X 2.0" West 20.88" 30.66"

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile #717 Area "D"

									CLIT - OFF WALL	VALL CONS	TRUCTION			
	0-100	IT-OFF WALL EXCAVA	NOL								A Care	Spec	Theoretical	
			Drill Footsone		Pure Drill Time		Penetration Rate	Ite			Non-Spec.	3000	Topicolorium.	American
	Edutonba			T		l	-	Dodrill	Constitution	1	Concrete	Concrete	VOICINE	CVEIDIGAN
Drilling	Rig	Excavation	Di-II	Redrill		Hedrill			Date			(CU.YD.)	(CU.YD.)	
Date	*	Method	Œ	Œ	(SHRS)	(HRS)	(FI / HH)	(F1 / HM)	Date	20.00	200			
2													(744 00/
10,10	•	Annana	42		200		21.00		01/24/94	8			8.6	511.8%
\$6/82/10	_	S C C C C C C C C C C C C C C C C C C C	į											
			707	ç	5 7E	1 17	15 48	35.90	03/04/94			8	30.6	%S:
03/03/94	7	DHD130A	2	¥		-	?							

Total Drill Time = Average Penetration Rate =

7.75 Hours 16.90 Feet / Hour

Total Redrill Time = Average Penetration Rate =

1.17 Hours 35.90 Feet / Hour

Verticality Information

3.0" North X 0" East / West At Full Depth =

30.66" S-ARC North = S-ARC South =

Quality Coring: None.

Comments: Connected with pile 692, holes filled simultaneously - 60 cy total.

Secondary Pile #718

Area "D"

	CIT-0	FF WALL EXCAVA	ATION						CUT-OFF \	WALL CONS	TRUCTION			
	Farinmen		Drill Footage		Pure Drill Time		Penetration Rate	ite			Non-Spec.	Spec.	Theoretical	
Drilling	Rig	Excavation	Drill	Redrill	Drill	Redrill	Drill	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
Date	#	Method	Œ	Œ	(HRS)	(HRS)	(FT/HR)	(FT / HR)	Date	(CU.YD.)	(CU.YU.)	(CU.YU.)	(CO.YD.)	
10/14/93	-	240	130		7.92		16.41		10/15/93			36	30.4	18.6%
		-												ı

Total Drill Time = Average Penetration Rate =

7.92 Hours 16.41 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

0" North / South X 1.5" West 22.12" 18.78"

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile #719 Area "Ď"

IČ	FF WALL EXCAVA	ATION						CUT-OFF V	VALL CONS	TRUCTION			
nioment		Drill Footage		Pure Drill Time		Penetration Rate	ite			Non-Spec.	Spec.	Theoretical	
\vdash	۵	Drill	Redrill		Redrill	Drill	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
1	Method	Œ	<u>E</u>	(HRS)	(HHS)	(F1 / HH)	(FI / HH)	Date	(CO.YD.)	(CO.TD.)	(50.10.)	100.10.7	
-	DHD130A	88		2.13		17.84		02/08/94	æ			8.9	294.4%
8	XL-24	. 65	88	1.17	0.83	23.08	45.78	02/16/94	8			15.2	44.9%
8	XL-24	130	65	3.08	1.67	21.10	38.92	03/07/94			8	30.4	12.0%

Average Penetration Rate = Total Drill Time =

6.38 Hours 20.38 Feet / Hour

Total Redrill Time = Average Penetration Rate ≈

2.50 Hours 41.20 Feet / Hour

4.75" South X 1.75" East Verticality Information

18.78" 35.32"

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments: Connected with pile 713, both holes grouted simultaneously.

Secondary Pile #720 Area "D"

-	1	TECHNALL EVENIA	HOIL					Ť	CUT-OFF V	WALL CONS	TRUCTION			
	200	JEE WALL EAUNY	201								Mon Snor	Spor	Theoretical	
	Common	-	Drill Footage		Pure Drill Time		Penetration Hate				100			A. thursday
					-		15	-	Constitution	1	Concrete	Concrete	OFFICE	28005 28005
Drilling	Rig	Excavation	Ē (Hed i	5	Hedri		HE / HE	Date	CHAD	(CU.YD.)	(CU.YD.)	(CU.YD.)	
Date	*	Method	(FI)		2	2		╬						
												0	40.2	- 12 A94
10/16/93	_	XL-24	44		1.17		37.61		10/16/93			9	0.0	15.4%
										1			7.0	764 407
04/07/04	•	DHD130A	99	8		1.67		17.96	01/28/94	8	53		2.	81.18
10/10/10												1		;
	(5	404	44	3,58	0.75	24.30	28.67	02/23/94			ਲ	30.6	%L.LL
02/23/94	N	VL-24	2		3	5								

Total Drill Time = Average Penetration Rate =

4.75 Hours 27.58 Feet / Hour

2.42 Hours 30.58 Feet / Hour

Total Redrill Time = Average Penetration Rate =

Verticality Information

At Full Depth = 2.0" North X 2.5" East S-ARC North = 35.32" S-ARC South = 22.11"

Quality Coring: None.

Comments: Connected with pile 696.

Primary Pile #721 Area "D"

	1110	ALE WALLEYCAVA	MULL						CUT-OFF V	VALL CONS	TRUCTION			
	200	JEF WALL EACAV	201		Ŀ		, 0	,			Non-Spec	Spec.	Theoretical	
	Fortinment	1	Drill Footage		Fure Unit I me		Penetration rate	1			1000		Web.m.	Josephan
		Committee	li-C	Dedrill	ii.C	Redrill		Redrill	Concrete	gon	Concrete	Concrete	VOILLIB	OVERDIGAN
Bulling	Đ.	Extravation	5 (Ę	1007	(JODO)	MH/ Li)	AH/HB	Date	(CU.YD.)	(CU:YD:)	(CC.YD.)	(CU:YD:)	
Date	#	Method	(FE)		(SUL)	2								
														/92 90
02/02/94	-	DHD130A	8		2.78		21.58		02/02/94	₩			0.4.	20.3%
													700	40.00
A9/00/50	0	DHD130A	130	8	5.08	3.25	13.78	18.46	03/02/94			\$	90.4	60.00
0000														

Total Drill Time = Average Penetration Rate =

7.86 Hours 16.54 Feet / Hour

Total Redrill Time = Average Penetration Rate =

3.25 Hours 18.46 Feet / Hour

Verticality Information

1.0" South X 1.0" East

22.11" 29.88" At Full Depth = S-ARC North = S-ARC South =

Comments:

Quality Coring: None.

Secondary Pile #722 Area "D"

-	CITTO	FF WALL EXCAVA	ATION						CUT-OFF	WALL CONS	TRUCTION			
	Fortigue	+	Drill Footage		Pure Drill Time		Penetration Rate	ate			Non-Spec.	Spec.	Theoretical	
Drilling	Rig	Excavation	Dillo	Redrill		Redrill	Drill	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
Date	°*	Method	Œ	(FI	(HRS)	(HRS)	(FT / HR)	(FT/HR)	Date	(CU.YD.)	(CU.YD.)	(CU.YD.)	(CU.YD.)	
									40/40/00		a +		-	64 PP.
10/18/93	2	240	47		2		\$ 6		28/01/01		2		2	200
02/19/94	8	DHD130A	130	47	6.18	2.57	13.43	18.29	02/19/94		Ma	8	30.4	12.0%

8.02 Hours 16.21 Feet / Hour

Total Drill Time = Average Penetration Rate =

2.57 Hours 18.29 Feet / Hour

Total Redrill Time = Average Penetration Rate =

Verticality Information

1.5' North X 2.0' West 29.88" 21.31"

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile #723 Area "D"

6	TIL	CE WALL EXCAV	MOITS						CUT-OFF \	WALL CONS	TRUCTION			
1	Tipmont.	יייייייייייייייייייייייייייייייייייייי	Drill Footage		Pure Driff Time		Penetration Rate	ıte			Non-Spec.	Spec.	Theoretical	
í	Rig	Excavation	Ori	Redrill	Drill	Redrill	Drill GT / TJ	Redrill (FT / HB)	Concrete	Grout	Concrete	Concrete (CU.YD.)	Volume (CU.YD.)	Overbreak
Date	#	Method	(FI)		QUE.	CUL	מנו / ונו	7.1.7	Caro		7.2			
2/02/94	-	DHD130A	8		3.75		16.00		02/03/94	18			14.0	28.5%
3/10/94	8	XL-24	130	9	3.08	1.50	22.73	40.00	03/11/94			8	30.4	18.6%
_	_													

Total Drill Time = Average Penetration Rate =

6.83 Hours 19.03 Feet / Hour

Total Redrill Time = Average Penetration Rate =

1.50 Hours 40.00 Feet / Hour

Verticality Information

2.0" South X 3.0" West 21.31" 29.02" At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile #724 Area "D"

	1	VEC MAIL EVENAVA	MULTIN						CUT-OFF V	VALL CONS	TRUCTION			
) - 	JEL WALL LAUAN			Just Dail Timo		Donotration Bate	9			Non-Spec.	Spec.	Theoretical	
	Follower	=	Drill rootage		Fulle Dilli I i i i i i		alcilation is	١					Making.	Section 1
Drilling	, id	Excavation	Diag	Redrill	Dilli	Redrill		Redrill	Concrete	Grout	Concrete	Concrete	Volume	CVerbreak
	P *	Mathea	Ę	Ę	(HRS)	(HRS)	(FT / HR)	FT/HR)	Date	(CU.YD.)	(CU:VD:)	(CU.VD.)	(CU.YD.)	
Date	#	Meriod		71.17	2			-						
10000	_	DUD420A	8		85.6		16.76		01/26/94	18			14.0	28.5%
46/LZ/0L	-	ADSIGNA DELIGINA	3		}									
00/26/00	0	DHD130A	130	99	5.33	250	13.13	24.00	02/25/94			33.5	30.4	10.4%
מבובחו אב	1													

8.91 Hours 14.59 Feet / Hour

Total Drill Time = Average Penetration Rate =

2.50 Hours 24.00 Feet / Hour

Total Redrill Time = Average Penetration Rate =

Verticality Information

o" North / South X 1.0" East 29.02" 23.76" At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile #725 Area "D"

	FIS	FE WATE EVENIA	ITION						CUT-OFF V	WALL CONS	TRUCTION			
	3	THE WALL CAUSE	1011									0.00	Thoopropinol	
	Fortimen		Drill Footage		Pure Drill Time		Penetration Rate				Non-spec.	Shee.	i adicina	
Drilling	Ric	Fxcavation	Duil	Redrill	Drill	Redrill	Drill	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Cverbreak
S of the	*	Method	Ę	Œ	(HRS)	(HRS)	(FT/HR)	(FT/HR)	Date	(CU.VD.)	(CU.YD.)	(CU.VD.)	(CU.YU.)	
									100000	8			140	42.7%
02/03/94	-	DHD130A	8		2.25		79.07		# /#n/20	3				į
03/04/94	٥	XL-24	130	99	2.67	. 1.67	26.22	35.93	03/05/94			34.5	30.4	13.6%

Total Drill Time = Average Penetration Rate =

1.67 Hours 35.93 Feet / Hour

4.92 Hours 26.42 Feet / Hour

Total Redrill Time = Average Penetration Rate =

Verticality Information

2.0" South X 0" East / West At Full Depth =

23.76" 28.12" S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile #726 Area "D"

		PECINAL EXCAVA	NOIL						CUT-OFF V	VALL CONS	TRUCTION			
		ANDER TYPE			Our Drill Time		Panetration Rate	q			Non-Spec.	Spec.	Theoretical	
	Fauroment		Dull roomage			1					-	Concession	Vokimo	Assertions
Drilling	Rid	Excavation	Dril	Redrill		Redrill		Hedrill	Concrete	Grout	Concrete			CAGIDICAN
Pate	*	Method	Œ	Œ	(HRS)	(HRS)	(FT/HR)	(FT/HR)	Date	(CU.YD.)	(CU.YU.)	(CO.1D.)	(20.10.)	
											1		•	707 707
04/08/04	•	DHD130A	8		1.08		27.78		01/29/94	4	23		0.7	%r.#0r
10/02/10														
10,100	,	DUD1208	8	9	- 68	0.73	16.67	41.10	02/22/94	\$			14.0	185.5%
\$/12/20	V	2000	3	3										
			7	8	8	0	23.67	75.00	10/08/94			88	30.6	24.2%
02/26/94	8	XL24	5	3	3	3	5							

5.88 Hours 22.28 Feet / Hour

Total Drill Time = Average Penetration Rate =

1.53 Hours 58.82 Feet / Hour

Total Redrill Time = Average Penetration Rate =

Verticality Information

1.0" South X 1.0" East

28.12" 26.64" At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile #727 Area "D"

	Space	apar.	Concrete Volume Overbreak	(CO.1D.)	14.7 165.1%		35 30.4 15.3%	
WALL CONSTRUCTION	TOTAL COLUMN	_	Grout Concrete	+	Ş	3		
CUT-OFF V			Concrete	Date	10/11/00	ts/±100	03/10/94	
		ate	Redrill	(FT/HR)			47.37	
		Penetration Hate	Drill	(FT / HR)		90.91	26.80	
			Redrill	(HRS)			1.33	
		Pure Drill Time	-	(HRS)		3.20	2.50	
			Redrill	(F)			83	
ATION	1012	Drill Footage	Drill	Œ		S	130	
VERTINAL EVENT	JEE WALL EACHV.	**	Excavation	Method		DHD130A	XI -24	
110	1 23	Louisimon!	Ria	*		-	C	
			Drilling	Date		02/14/94	03/07/04	

Total Drill Time = Average Penetration Rate =

5.70 Hours 22.81 Feet / Hour

Total Redrill Time = Average Penetration Rate =

1.33 Hours 47.37 Feet / Hour

Verticality Information

0.75" South X 3.0" West At Full Depth = S-ARC North = S-ARC South =

26.64"

Quality Coring: None.

Secondary Pile #728 Area "D"

	CUT-0	FF WALL EXCAVA	MOIL						CUT-OFF V	WALL CONS	TRUCTION			
	Fortimen	-	Drill Footage		Pure Drill Time		Penetration Rate	te			Non-Spec.	Spec.	Theoretical	
Drilling	Rig	Excavation	Drill	Redrill	Drill	Redrill	Orill	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
Date	*	Method	Œ	(FI)	(HHS)	HES	(FI / HR)	(FI / HH)	Dare	(.00.10.)	(01.00	20.10.	(20.10.)	
02/08/94	-	DHD130A	61		4.91		12.42		02/08/94	15		,	14.2	5.3%
03/00/94	0	DHD130A	130	61	4.92	2.17	14.02	28.11	03/03/94			34.5	30.4	13.6%

9.83 Hours 13.22 Feet / Hour

Total Drill Time = Average Penetration Rate =

2.17 Hours 28.11 Feet / Hour

Total Redrill Time = Average Penetration Rate =

Verticality Information

o' North / South X 1.5' East 27.20' 23.78' At Full Depth =

S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile #729 Area "D"

	C11T_C	SEF WALL EXCAVA	VIION						CUT-OFF V	VALL CONS	TRUCTION			
	Equipmen	1	Drill Footage		Pure Drill Time		Penetration Rate	e			Non-Spec.	Spec.	Theoretical	
Drilling	Rig	Excavation	E (Redrill	Drill	Redrill	Drill (FT / HR)	Redrill (FT / HR)	Concrete	Grout (CU.YD.)	Concrete (CU.YD.)	Concrete (CU.YD.)	Volume (CU,YD.)	Overbreak
Date	#	Bilbin			2	2								
02/17/94	2	DHD130A	29		4.66		14.38		02/17/94	28			15.6	309.1%
03/11/94	8	XL-24	131	29	2.42	1.58	26.45	42.41	03/12/94			8	30.6	11.1%

Total Drill Time == Average Penetration Rate ==

7.08 Hours 18.50 Feet / Hour

1.58 Hours 42.41 Feet / Hour

Verticality Information

Total Redrill Time = Average Penetration Rate =

2.0" South X 2.25" East At Full Depth =

23.78" 27.83"

S-ARC North = S-ARC South =

Quality Coring: None.

2/17/94 34 cu. yd. re-pour of grout due to lost bit. Comments:

Secondary Pile # 730 Area "D"

	1110	CEMAII EVOAVA	MOIT						CUT-OFF WALI	VALL CONS	TRUCTION			
	2 - 2	FF WALL EACAY	2013								Mon Snoo	Snor	Theoretical	
	Fortingen		Drill Footage		Pure Drill Time		Penetration Hate				MOI Shore	choor.		1
Orilling	i i	Excavation	Drill	Redrill	Drill	Redrill	Ni-iQ	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
Date	*	Method	Œ	Ē	(HRS)	(HRS)	(FT/HR)	(FT/HR)	Date	(CU.YD.)	(CU.VU.)	(20.10.)	20.10.)	
												_		
01/27/94	-	DHD130A	27		1.17		23.08		01/27/94	2			6.3	233.1%
													C L	, 000
VO/20/07	c	DHD130A	88	27	1.42	1.18	26.76	22.88	02/23/94	8			2.61	£ 2.
חכובטו פינ	_													
	•	90070110	130	20	5.83	2.58	11.15	25.19	03/02/94			8	30.4	15.3%
03/02/94	-	ADSI GHO	3	3		}								

8.42 Hours 15.44 Feet / Hour

Total Drill Time = Average Penetration Rate =

Total Redrill Time = Average Penetration Rate ==

3.76 Hours 24.47 Feet / Hour

Verticality Information

1" South X 1" West

23.78 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Primary Pile #731 Area "D"

	1.0	TELINAL EVENTAVA	I VOIT						CUT-OFF V	VALL CONS	TRUCTION			
	2-1-23	JEE WALL EACAVE	2012								1000	0000	Thompstical	
	Fallinmen	-	Drill Footage		Pure Drill Time		Penetration Rate				Non-spec.	onec.	illeolenca.	1
0.411.0	2 0	Evenation	Drill	Radrill	Drill	Redrill	JII.O	Redrill	Concrete	Grout	Concrete	Concrete	Volume	CVerioreak
Dilling G	Ď,	Mathod	.	6	HRS	(HRS)	(FT / HR)	(FT / HR)	Date	(CU.YD.)	(CU.YD.)	(CU:YD:)	(CU.YD.)	
Date	*	Mediod			2									
	(40040110	9		3.47		16.14		02/11/94	22			13.1	312.9%
02/11/94	N	DHDI30A	8		ř		3							
			-	1		4 05	20 00	08.44	03/07/04			8	30.6	11.1%
03/06/94	-	XL-24	בנו	8	70.7	3			10/00					

Total Drill Time =

6.14 Hours 21.34 Feet / Hour

Average Penetration Rate = Total Redrill Time = Average Penetration Rate ==

1.25 Hours 44.80 Feet / Hour

Verticality Information

0" N/S X 1.5" West 28.15 28.43 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile #732 Area "D"

	0117	FE WALL EXCAVA	VOIT						CUT-OFF V	VALL CONS	TRUCTION			
		-	Drill Footage		ure Drill Time		Penetration Rate	9			Non-Spec.	Spec.	Theoretical	
Drilling	Rig	Excavation	Dill	Redrill		Redrill	Orill	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
Date	*	Method	E	Œ	(HRS)	(HRS)	(FT/HR)	(FI / HR)	Date	(CO.YD.)	(CU.YU.)	(50.10.)	(20.10.)	
01/24/94	-	DHD130A	52	-	1.17		21.37		01/25/94	81			5.8	208.3%
01/29/94	-	DHD130A	31	52	0.27	0.53	22.22	47.17	01/29/94	12	-		7.2	79.6%
02/19/94	-	DHD130A	æ	31	1.75	1.08	19.43	28.70	02/19/94	8			15.2	31.8%
02/24/94	8	XL-24	131	31	2.92	1.25	34.25	24.80	02/26/94			*	30.6	11.1%

Total Drill Time =

6.11 Hours 27.00 Feet / Hour

Average Penetration Rate =

2.86 Hours 30.42 Feet / Hour

Total Redrill Time = Average Penetration Rate ==

Verticality Information

1.25" North X 0" E/W At Full Depth =

28.15 28.42 S-ARC North = S-ARC South =

Comments:

Quality Coring: None.

Primary Pile # 733 Area "D"

	OTITE OF	DEF WALL EXCAVA	MOIT						CUT-OFF1	WALL CONS	L CONSTRUCTION			
	Forting	#	Drill Footage		Pure Drill Time		Penetration Rate	ıte			Non-Spec.	Spec.	Theoretical	
- Hilling	200	Evention	Drill	Redrill	Drill	Redrill	Duil	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
Diago.	Ē ‡	Mathod	<u> </u>	6	HRS	(HRS)	(FT/HR)	(FT / HR)	Date	(CU.YD.)	(CU.YD.)	(CU:YD:)	(CU.YD.)	
Date		201001												
02/04/94	-	DHD130A	8		2.85		21.05		02/02/94	8			14.0	556.6%
10,07,00	c	N - 24	5	8	3.25	1.67	21.54	35.93	03/11/94			8	30.4	12.0%
101/20	7	AL 24	3	3										

Average Penetration Rate = Total Drill Time =

6.10 Hours 21.31 Feet / Hour

Total Redrill Time = Average Penetration Rate =

1.67 Hours 35.93 Feet / Hour

Verticality Information

2.5" North X 1.5" East

28.43 20.34 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 734 Area "D"

•									CUT-OFF V	VALL CONS	TRUCTION			
	O-Ino	FF WALL EXCAVA	NOIL								Non-Coor	Snec	Theoretical	
			Drill Footsch		Jure Drill Time		Penetration Hate	ite			Mail Spec.		1/4	James de la
Drilling	Rio	Excavation	Drill	Redrill		Redrill	Orill	Redrill	Concrete	Grout	Concrete	Concrete		OVERDIGHEN
Date	°*	Method	(FI)	(FI)	(HRS)	(HRS)	(FT / HR)	(FT/HH)	Date	(CO.YD.)	CO. LO.	20.00	1000	
					,		20,00		01/26/94	5			. 6.8	77.2%
01/26/94	-	DHD130A	83		1.42		24.42		100/10	!				
		,	į	8	40	0.58	33.33	50.00	02/16/94	37			15.2	143.8%
02/16/94	2	XL-24	8	8	3	3						1		
A0/A0/00	0	DHD130A	130	8	4.59	2.08	14.16	31.25	02/24/94			35.5	30.4	10.9%
06/2/194	1													

7.09 Hours 18.34 Feet / Hour Total Drill Time = Average Penetration Rate =

2.66 Hours 35.34 Feet / Hour Total Redrill Time = Average Penetration Rate =

Verticality Information

1.5" South X .5" West At Full Depth = S-ARC North = S-ARC South =

28.42

Quality Coring: None.

Comments:

Primary Pile # 735

Area "D"

									CLITLOFFV	VALL CONS	TRUCTION			
	CILIC	DEF WALL EXCAVA	ALION									-	Theoretical	
			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		Dura Drill Timo		Penetration Rate	ţe.			Non-Spec.	obec.	HENGING	
	Tolling The T	=	Dull roomide		-1			н		1	Connection	Concrete	Votime	Cvertreak
Drilling	Did.	Freaution	Drill	Redrill	E O	Redrill		Redrill	Concrete	Grout	Concrete			
בווונים בי	2	Mathead	Ę	Ę	HRS	(HRS)	EH/FE	(FT/HR)	Date	(CU.YU.)	CO.YD.)	20.10.	20.10	
Date	*	Meriod		7										
	,	Aggrana	g		200		17.23		02/03/94	16			13.1	22.4%
02/02/94	_	DHOISON	3											
02/04/04	0	DHD130A	131	88	4.17	2.67	17.99	20.97	03/05/94			33.5	30.6	%C:05
5/5/3	1													

7.42 Hours 17.65 Feet / Hour Total Drill Time = Average Penetration Rate =

2.67 Hours 20.97 Feet / Hour

Total Redrill Time = Average Penetration Rate =

Verticality Information

0" N/S X 2" West 20.34 28.13 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Secondary Pile # 736 Area "D"

	CUT-0	OFF WALL EXCAVA	TION						CUT-OFF W	VALL CONS	TRUCTION			
	Tauripment	-	Drill Footage	ľ	Yure Drill Time		Penetration Rate				Non-Spec.	Spec.	Theoretical	
Drilling	Ric	Excavation	Dill	Redrill	Drill	Redrill	Drill	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
Date	*	Method	Œ	Œ	(HRS)	(HRS)	(FT / HR)	(FT / HR)	Date	(CU.YD.)	(CU.YD.)	(CU.YD.)	(CU.YD.)	
01/24/94	•	DHD130A	7.7		0.58		46.55		01/25/94	24			6.3	280.7%
10,50	*	DUD4304	Ş	20	0.50	0.25	9	108.00	01/28/94	5			7.0	71.3%
あんろにつ		A COLOR	3 6	i 8	3 8		8	44.70	20/15/04				c rt	96 96
02/15/94	_	XL-24	3	3	3.	0.0	8 3	4.70	#s/c1/20	‡		u u	7.00	9
02/22/94	2	XL-24	130	æ	275	1.17	23.64	99:30	UZIZZISA			000	30.4	0.69

Total Drill Time = Average Penetration Rate =

4.86 Hours 26.75 Feet / Hour

2.09 Hours 58.37 Feet / Hour

Total Redrill Time = Average Penetration Rate = Verticality Information

1" North X 3" West 28.77 At Full Depth = S-ARC North = S-ARC South =

25.04

Quality Coring: Non NO from 0' to 127'

Comments:

Primary Pile #737 Area "D"

		Overbreak			428.2%	15.3%	
					14.0	30.4	
	Theoretical	Volume	CC.YO				
	Spec.	Concrete	(CU.YD.)			8	
TRUCTION	Non-Spec.	Concrete	(CU.YD.)				
VALL CONS		Grout	(CU.YD.)		74		
CUT-OFF V		Concrete	Date		02/08/94	03/10/94	
		Redrill	(FT / HR)			35.93	The state of the s
	Penetration Rate	Dirio	(FT / HR)		24.79	22.15	
		Redrill	(HRS)			1.67	
	^o ure Drill Time	Drill	HRS)		2.42	3.16	
		Redrill	E			8	
VION	Drill Footage	Drill	6		8	130	
F WALL EXCAVA		Excavation	Method		DHD130A	XL-24	
CUT-O	Equipment	Rig	. **		_	8	_
		Drilling	Date	Caro	02/08/94	03/07/94	

Total Drill Time = Average Penetration Rate =

5.58 Hours 23.30 Feet / Hour

Total Redrill Time = Average Penetration Rate =

1.67 Hours 35.93 Feet / Hour

Verticality Information

0" N/S X 0" E/W 28.13 26.76 At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments: Hole caved in to 30'

Secondary Pile # 738 Area "D"

	CIT-O	FF WALL FXCAVA	NOIL						CUT-OFF V	WALL CONS	TRUCTION			
	Farinmen	-	Drill Footage		Pure Drill Time		Penetration Rate				Non-Spec.	Spec.	Theoretical	
Drilling	Rig	Excavation	Drill	Redrill	Drill	Redrill	Drill	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
Date .	*	Method	(FI)	E	(HRS)	(HRS)	(FI / HH)	(FI / HH)	Date	(CU.YU.)	(CO. TO.)	20.10.	100.100	
09/22/94	-	DHD130A	52		2.67		19.85		09/22/94		17		12.4	37.4%
02/01/94	-	DHD130A	ß	ß		1.00	00.00	53.00	02/02/94	18			12.4	45.4%
02/28/94	-	DHD130A	130	æ	5.50	1.25	14.00	42.40	03/01/94			36.5	30.4	20.2%

Total Drill Time =

8.17 Hours 15.91 Feet / Hour

Average Penetration Rate =

2.25 Hours 47.11 Feet / Hour

Total Redrill Time = Average Penetration Rate ==

Verticality Information

0" N/S X 0" E/W 28.13 26.76

At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments: Guide wall cracked; Hole fell in to 17'on 9/22/94. Cavity at 53'-Stopped hole

CONFORMING PILE DATA

Conforming Pile # 26–27 Area "A"

	_		COLUMN (CUMN)		21 19.1 9.7%	
WALL CONSTRUCTION	L	100	Concrete	20.10.		
CUT-OFF WALL C		_	ŏ	naie	05/07/93	
		Hale	_	(FI / HH) (FI / HH)	11.19	
		Pure Drill Time	Drill Redrill	(HRS) (HRS)	7.33	
40	COL	Drill Footage	Drill Redrill	(F) (F)	28	
TOPE MAIN EXCAVA	-OFF WALL EACAVA	nment	g Excavation	Method	1 DHD130A	
	3	10.1	Drilling	Date #	05/03/92	

Total Drill Time = Average Penetration Rate =

7.33 Hours 11.19 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

Verticality Information At Full Depth =

2.5" South X 1" East

Quality Coring: None.

Conforming Pile # 40-41 Area "A"

	55	-	XEEDGES	_		35.7 12.0%	
	_	_	_	(CU.YD.)		40	
	ŀ			(CU.YD.)	L		
CUT-OFF WALL CONSTRUCTION	Alon-Spor	100	Constate	(CK NO)			
WALL CON			1		100.100		
CUT-OFF			Character	Concrete	Caro	05/12/93	
		are	Ti-C		(1117)	10	
		Penetration Hate	i		יייייייייייייייייייייייייייייייייייייי	10.25	
		0		Hadrill	QUE.		
		Pure Drill Time			(EHE)	14.92	
				Redrill	(F1)		
MOITA	100	Drill Footage		Drill	E)	153	
THE WALL EVENING	OFF WALL EACAY	24		Excavation	Method	DHD130A	
1	5	Con in the		Rig	*		
				Drilling	Date	05/04/90	

14.92 Hours 10.25 Feet / Hour

Total Drill Time = Average Penetration Rate =

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

1.5" South X 2.25" East At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Conforming Pile # 50-51 Area "A"

14.08 Hours 10.65 Feet / Hour

Total Drill Time = Average Penetration Rate ≈

Total Redrill Time = Average Penetration Rate =

None

2.21" N X 2.48" E 17.33" Verticality Information

At Full Depth = CORD North =

Quality Coring: None.

Comments:

Conforming Pile # 55-56

Area "A"

Total Drill Time = Average Penetration Rate =

15.58 Hours 9.63 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

6.29" S X 1.31" E 24.06"

At Full Depth = CORD North =

Quality Coring: None.

Conforming Pile # 58–59 Area "A"

								ICUT_OFF WALL CONSTRUCTION	WALL CONS	TRUCTION			
	C I I	DEF WALL EXCAVA	NO								Conco	Theoretinal	
	5		Drill Footage		Pure Drill Time		Penetration Rate	٦		Non-spec.	apar.	Vehimo	Chartrook
Drilling	Rid	Excavation	Drill	Redrill	Dull	Redrill	Drill Redrill	Concrete	Grout	Concrete	(CU.YD.)	(CU.YD.)	OVERDIGEN.
Date	*	Method	(FI	(FI)	(HRS)	(HHS)	1	╀	77				
01/06/93	2	XL-24	150		5.08		29.53	01/10/94			40	35.0	14.2%

Total Drill Time = Average Penetration Rate =

5.08 Hours 29.53 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

Verticality Information At Full Depth = CORD North ≈

2.01" N X 1.63" W 21.18"

Quality Coring: None.

Conforming Pile # 63-64 Area "A"

	CITTO	FYCAVA	NOIL						CUT-OFF V	WALL CONSTRUCTION	TRUCTION			
		*	Drill Ecotada		Pure Drill Time		Penetration Rate	te			Non-Spec.	Spec.	Theoretical	
		1								1	Comment	Concente	Vokimo	Chartrook
Drilling	Die	Eveavation	Diil	Redrill		Redrill		Hedrill	Concrete	TO S	CONCIENTE	COLCIERE		A CARLO CONTRACTOR OF THE CARL
	P :	1000	Ę	Ę	(HBC)	HRS	(FT / HR	(FT / HB)	Date	(CC.YD.)	(CU:VD:)	(CU.YD.)	(CU.VD.)	
Date	*	Merrod	1		2	2								
26/60/90	2	DHD130A	150		11.00		13.64		06/12/93			39.5	35.0	12.8%

Total Drill Time = Average Penetration Rate =

11.00 Hours 13.64 Feet / Hour

None

Total Redrill Time = Average Penetration Rate ==

Verticality Information

1.5" S X 4.25" E] At Full Depth = S-ARC North = S-ARC South =

Quality Coring: None.

Comments:

Conforming Pile # 68-69

Area "A"

		Josephood				35.3 10.6%	
	Theoretical	Vot imo	ACHILLE	CO.YD.			
	Spec.		COLICIERE	(CU.VD.)		30	
STRUCTION	Non-Spec.		Concrete	(CC.YD.)			
F-OFF WALL CONSTRUCTION		•	TION S	(CU.YD.)			
CUT-OFF			Concrete	Date		01/10/94	
	te	ł	Hedrill	(FT / HR)			
	Penetration Bate	a common of		(FT / HP)		25.51	
			Redrii	(HRS)			
	Davis Dell Timo	LUIG CHILL I BING	- E	HRS		5.92	
			Redrill	Ę	- 71		
NOIT	1 11 0	DIIII rootage	Drill	Ę		151	
FE WALL EXCAVA		1	Excavation	Mathod	Mealon	XL-24	
		Edulome	Ď.	D 4	#	2	
			Drilling		Care	01/02/94	

Total Drill Time = Average Penetration Rate =

5.92 Hours 25.51 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

2.5" N X 3" W 29.90" At Full Depth = CORD North =

Quality Coring: None.

Conforming Pile # 76-77 Area "A"

Dillilling and State of the sta	rill Footage	Badrill	Pure Drill Time		Penetration Rate Drill	Redrill	CUT-OFF M	ALL CONS Grout	ALL CONSTRUCTION Non-Spec. Grout Concrete	Spec. Concrete	Theoretical Volume	Overbreak
Date # Memod	(FT)	Œ	(HRS)	(HRS)	(FT / HR)	(FT/HR)	Date	(cu.vo.)	(CU.YD.)	(CU.YD.)	(CU:VD:)	
01/07/94 2 XL-24	151		4.58		32.97		01/10/94			8	35.3	10.6%

Total Drill Time = Average Penetration Rate =

4.58 Hours 32.97 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

Verticality Information
At Full Depth = 0' N/S X 0' E/W
CORD North = 22.39'
S-ARC South =

Quality Coring: None.

Conforming Pile # 83-84 Area "A"

5		2012						COLLOPT	VALL CONS	L CONSTHUCTION			
		101111111111111111111111111111111111111									0.00	Thomson	
	nent	Drill Footage		Pure Drill Time		Penetration Rate				Non-spec.	apac.	Hedelical	
Drilling	Excavation	Dull	Redrill	Pie O	Redrill	Drift	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
Date #	Method	E	E	(HRS)	(HRS)	(F1 / HH)	(FI / HH)	Date	(CO.1D.)	(CO.TD.)	20.10.1	20.00	
06/21/94	1 DHD130A	150		8.75		17.14		06/22/93			40	35.0	14.2%

8.75 Hours 17.14 Feet / Hour

Total Drill Time = Average Penetration Rate =

Total Redrill Time = Average Penetration Rate =

None

2.25" N X 2.5" W 29.86

Verticality Information
At Full Depth =
CORD North =
S-ARC South =

Quality Coring: None.

Conforming Pile # 93-94 Area "A"

	O-TIT	JEE WALL EXCAVA	NOIT						CUT-OFF W	WALL CONS	TRUCTION			
	Fouringent	14	Drill Footage		Pure Drill Time		Penetration Rai	te			Non-Spec.	Spec.	Theoretical	
Drilling	Rig	ğ	름	Redrill	Drill	Redrill	Drill Con (F)	Redrill (CT / LD)	Concrete	Grouf	Concrete	Concrete	Volume (CU:YD.)	Overbreak
Date	*	Method	(FI)		(HHS)	(CHL)	(00711)	(1) (1)	Date	100.100	7.50			
06/19/93	2	DHD130A	150		11.67		12.85		06/21/93			40	35.0	14.2%

11.67 Hours 12.85 Feet / Hour

Total Drill Time = Average Penetration Rate =

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

3.25°S X 3.75°E 23.91"

At Full Depth =
CORD North =
S-ARC South =

Quality Coring: None.

Comments:

Conforming Pile # 98-99

Area "A"

7				×.	
		Overbreak		14.2%	
	Theoretical	Volume (CU.YD.)		35.0	
	Spec.	Concrete (CU.YD.)		40	
TRUCTION	Non-Spec.	Concrete (CU.YD.)			
CUT-OFF WALL CONSTRUCTION		Grout (CU.YD.)			
CUT-OFF		Concrete		06/10/93	
	ate	Redrill (FT / HR)			
	Penetration Rate	Drill (FT / HR)		14.40	
		Redrill	2		
	Pure Drill Time	Drill	2	10.42	
		Redrill			
ATION	Drill Footage	E ((11)	150	
FF WALL EXCAVA		Excavation	Meglod	DHD130A	
CUT-0	Farsinger	Rig	*	7	
		Drilling	Cate	£6/60/90	

Average Penetration Rate = Total Drill Time =

10.42 Hours 14.40 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

2.75" N X 2" W 29.96

At Full Depth = CORD North = S-ARC South =

Quality Coring: None.

Conforming Pile # 105-106 Area "A"

		Overbreak		14.2%	
	Theoretical	Volume (CU.YD.)		35.0	
	Spec.	Concrete (CU.YD.)		40	
TRUCTION	Non-Spec.	Concrete (CU.YD.)			
CUT-OFF WALL CONSTRUCTION		Grout			
CUT-OFF		Concrete		06/16/93	
	ate	Redrill (FT / HR)			
	Penetration Rate	Drill (FT / HB)		16.99	
		Redrill	2		
	Pure Drill Time	Drill	2	8.83	
		Redrill			
NOIT	Drill Footage	E (150	
E WALL EXCAVA	ייייר דיייייי	Excavation	Memod	XL-24	
TIV		Rig	#	2	
		Drilling	Date	06/15/93	

8.83 Hours 16.99 Feet / Hour

Total Drill Time = Average Penetration Rate =

None

Total Redrill Time = Average Penetration Rate =

Verticality Information
At Full Depth =
CORD North =
S-ARC South =

1" N X 1.75" W 28.99

Quality Coring: None.

Conforming Pile # 135-136 Area "A"

		Academy C	_				35.0 14.2%	
	Theoretical	1/4	ACMINE	(CU.YD.)		t	8	
	Spec	1	Concrete	(CU.YD.)		;	40	
STRUCTION	Non-Spec	Mail open.	Concrete					
WALL CONSTRU			1		20.10.			
ICUT-OFF W			Concrete	Doto Doto	Dale		06/11/93	
	١	Ite	Dodrill		(חדו / ודו			
		Penetration Hate	-		(FI / FIR)		16.06	
				Hedrill	(HRS)			
		Pure Orill Time			(HRS)		9.34	
				Redrill	E)			
THOUSE.	NO	I Drill Footsco	San III		E		150	
	JEF WALL EXCAVE	+		Excavation	Method		DHD130A	
	CUT-C		Eduloment	Rid	*		2	
•				Drilling	200	Dale	06/10/93	

9.34 Hours 16.06 Feet / Hour

Total Drill Time = Average Penetration Rate =

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

0" N/S X 5" W 28.44" At Full Depth == CORD North == S-ARC South ==

Quality Coring: None.

Conforming Pile # 149-150 Area "A"

		Overbreak		14.2%
	Theoretical	(CU.YD.)		35.0
	Spec.	Concrete (CU.YD.)		40
STRUCTION	Non-Spec.	Concrete (CU.YD.)		
CUT-OFF WALL CONSTRUCTION		Grout (CU YD.)		
CUT-OFF		Concrete		£6/60/90
		Redrill FT / HR		
	Penetration Rate	Drill (FT / HR)		13.13
		Redrill	2	
	Pure Drill Time	Drill	2	11.42
		Redrill		
TION	Drill Footage	E (150
FF WALL EXCAVA		Excavation	Mediod	DHD130A
CIIT-O	Fourioment	Rig	*	2
		Drilling	Date	06/60/93

Total Drill Time.= Average Penetration Rate =

11.42 Hours 13.13 Feet / Hour

02/08/00

Total Redrill Time = Average Penetration Rate =

Verticality Information
At Full Depth =
S-ARC North =
S-ARC South =

1.5" N X 2.25" W 28.82"

Quality Coring: None.

Conforming Pile # 434-435 Area "A"

	TIL	EE WALL EYCAVA	TION						CUT-OFF WALL	WALL CONS	TRUCTION			
	2	THE WALL CANAL			E						Nice Coop	Spec	Theoretical	
	-automent	-	Drill Footage		Pure Unil Ime		Penetration Hate	•			MOI Share		i i i	
Drilling	Rjg	ă	III.O	Redrill	Drill	Redrill		Redrill	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
Date	*	Method	(FT)	(FI)	(SHE)	(QLE)	(FI / FIR)	יין / חח/	Cale	20.10.	20.00	200	121.50	
01/10/93	2	XL-24	171		5.91		28.93		01/11/93			44	39.9	10.2%

Total Drill Time = Average Penetration Rate =

5.91 Hours 28.93 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

Verticality Information At Full Depth = 1.5"South 1.5"East S−ARC North ≈ S−ARC South =

Quality Coring: None.

Conforming Pile # 489-490 Area "A"

	OLIT OFF	CE WALL EVEAVA	MOIT						CUT-OFF WALL CONSTRUCTION	WALL CONS	TRUCTION			
	21 23	TANKET EVOLAT	1011								Alam Onon	Coco	Theoretical	
	Follomen		Drill Footage		Pure Drill Time		Penetration Hate				NOI - Sheet	3		,
Drilling	Rig	Excavation	Duill	Redrill	Drill	Redrill		Redrill	Concrete	Grout	Concrete	Concrete	(CL XI)	Overbreak
Date	*	Method	(FI)	Œ	(HRS)	(HHS)	(FI / HR)	(FI / HH)	Date	(CO.1D.)	20.10	2000		
11/30/93	2	XL-24	170		6.00		28.33		12/01/93			47	39.7	18.4%

Total Drill Time = Average Penetration Rate =

6.00 Hours 28.33 Feet / Hour

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

At Full Depth = 3.5" South 4.0" East S-ARC North = S-ARC South =

Quality Coring: None.

Conforming Pile #J-502-503

Area "B"

		Overbreak		8.8%
	Theoretical	Volume	(CU:VD)	43.2
	Spec.	Concrete	(CU:VD:)	47
STRUCTION	Non-Spec.	Concrete	(CU.YD.)	
UT-OFF WALL CONSTRUC		Grout	(CU.YD.)	
CUT-OFF		Concrete	Date	08/05/94
	te	Redrill	(FT/HR)	
	Penetration Pate	Duil	(FT / HR)	. 14.42
		Redrill	(HRS)	
	Pure Drill Time	Drill	(HRS)	12.83
		Redrill	E	
ATION	Drill Footage	Diil	Œ	185
JEF WALL EXCAVA	=	Excavation	Method	DHD130A
CUT-C	Equipment	Rig	*	-
		Drilling	Date	08/04/94

12.83 Hours 14.42 Feet / Hour

Total Drill Time = Average Penetration Rate =

None

Total Redrill Time = Average Penetration Rate =

Verticality Information

6.0° South X 9.0° West 21.0° 31.44"

At Full Depth == Chord, North == Chord, South ==

Quality Coring: None.

Comments:

Conforming Pile #J 505-506 Area "B"

8.8% Overbreak 43.2 Theoretical Volume (CU,YD.) 47 Spec. Concrete (CU.YD.) CUT-OFF WALL CONSTRUCTION
Concrete Grout Concrete
Date (CU.YD.) (CU.YD.) 08/03/94 Redrill (FT / HR) 16.82 enetration Ra Drill (FT / HR) Redrill (HRS) 11.00 ure Drill T Orill (HRS) Redrill (FT) 185 Il Footage Drill (FT) CUT-OFF WALL EXCAVATION Excavation XL-24 8 g & 08/01/94 Drilling Date

Total Drill Time = Average Penetration Rate =

11.00 Hours 16.82 Feet / Hour

None Total Redrill Time = Average Penetration Rate =

Verticality Information

1.0" North X 4.25" East 26.78" 24.03"

At Full Depth = Chord, North = Chord, South =

Quality Coring: None.

Conforming Pile #J 512-513 Area "B"

	O-TI-O	FF WALL EXCAVA	MION						CUT-OFF V	VALL CONS	TRUCTION			
	Fortiment		Drill Footage		Pure Drill Time		Penetration Rate	ite			Non-Spec.	Spec.	Theoretical	
Drilling	Rich	Excavation	Drill	Redrill	Orill	Redrill	E LO	Redrill	Concrete	Grout	Concrete	Concrete	Volume	Overbreak
g atel	" *#	Method	E	Œ	(HRS)	(HRS)	(FT / HR)	(FT / HR)	Date	(CU.YD.)	(CU.YD.)	(CU.YD.)	(CU.YD.)	
			,		0 33		20.04		M9/96/94			47	43.2	9888
08/25/94		UHUJSON	3		3									

8.33 Hours 22.21 Feet / Hour

Total Drill Time = Average Penetration Rate =

None

Verticality Information

Total Redrill Time = Average Penetration Rate =

0" North / South X 0" East / West 29.67" 29.67"

At Full Depth =
Chord North =
Chord South =

Quality Coring: None.

COMFORMING PILE # 526-527 Area "B"

	Penetration Rate Non-Spec. Spec. Inecretical	Redrill Drill Redrill Concrete Grout Concrete Concrete	(HRS) (HT/HR) (FT/HR) Date (CU.YD.) (CU.YD.)	185 9.83 18.82 08/11/94 47 43.2 8.8%
NOI	ше	Drill	(HRS)	
CUT-OFF WALL EXCAVATI	Equipment		Date # Method	8/10/94 2 DHD130A

Total Drill Time = Average Penetration Rate =

9.83 Hours 18.82 Feet / Hour

Total Redrill Time = Average Penetration Rate =

Verticality Information

10.5" South X 8.5" West

At Full Depth = CORD North = CORD South =

Quality Coring: None.

CONFORMING PILE # 530-531 Area "B"

	_		╬	
	Theoretical	AOUM ON 12	(20.10.)	43.2
	Spec.	Concrete	(CT.O.)	47
TRUCTION	Non-Spec.	Concrete	(CO.AD.)	
CUT-OFF WALL CONSTRUCTION		Grout	(CO.YO.)	
CUT-OFF		Concrete	Cate	08/04/94
		Redrill	(FI / HH)	
	Penetration Rate	Drill	(FT/HR)	13.60
		Redrill	(HRS)	
	Pure Drill Time	Drift	(HRS)	13.60
		Redrill	(FI)	
NOIL	Drill Footage	Drill	Œ	185
EE WALL EXCAVA	1	Excavation	Method	DHD130A
110		Rio	*	2
		Drilling	Date	08/03/94

8.8%

Overbreak

Total Drill Time = Average Penetration Rate =

13.60 Hours 13.60 Feet / Hour

Total Redrill Time = Average Penetration Rate =

None

Verticality Information

6" South X 3.5" West

At Full Depth = CORD North = CORD South =

Quality Coring: None.

Conforming Pile #J 544-545 Area "B"

	75	_	September	-	_				43.2	
	Theoretic		Volume	1	COLYD					
	Spec		Concrete		CCLAD	-		-	4/4/	
CUT-OFF WALL CONSTRUCTION	Non-Coor	NO.	Concrete	25.55		100				
WALL CON			125	3		100				
CUT-OFF			Concrete	0012120	Date	Date			08/09/94	
		-1	11 Pool 11							
		Penetration Hate	Š	5		מנו			15.10	
			H-7-0		10000	CHU				
		Pure Unil Ime			10010	(HHZ)			12.25	
					Ę	=				
LION		Drill Footage			1	=			185	3
CE WALL EXCAVA	I WALL LACAY			Tycatation		Method	20.00		AUC+010	ASI DUO
TIL	2	Follower	5	.5.0	27	*			c	٧
				Critico	Similar	Date	Date		70,00,00	s /90/90

12.25 Hours 15.10 Feet / Hour

Total Drill Time = Average Penetration Rate =

Total Redrill Time = Average Penetration Rate =

10.25" South X 3.75" West 14.53" 32.52"

Verticality Information

At Full Depth =

Chord North =

Chord South =

Quality Coring: None.

Conforming Pile #J 573-574 Area "B"

47 Spec. Concrete (CU.YD.) CUT-OFF WALL CONSTRUCTION
Concrete Grout Concrete
Date (CU.YD.) (CU.YD.) 08/18/94 Redrill (FT / HR) 17.75 Drill (FT / HR) Redrill (HRS) ure Drill Time Drill (HRS) 10.42 Redrill (FI Drill Footage Drill (FT) 185 WALL EXCAVATION Excavation Method DHD130A Equipment Rig # 08/15/94 Drilling Date

8.8%

43.2

Overbreak

Theoretical Volume (CU.YD.)

10.42 Hours 17.75 Feet / Hour

Total Drill Time = Average Penetration Rate =

None

Total Redrill Time = Average Penetration Rate =

At Full Depth = S-ARC North = S-ARC South = Verticality Information

0" North / South X 2.5" East

Quality Coring: None.

Conforming Pile #J 610-611 Area "B"

-	CITTO	JEF WALL FXCAVA	NOIL						CUT-OFF WALL CONSTRUCTION	VALL CONS	TRUCTION			
	Fouring	-	Drill Footage		Pure Drill Time		Penetration Ra	te			Non-Spec.	Spec.	Theoretical	
Drilling	Rig	Excavation	E 6	Redrill	Diill	Redrill	Drill (FT / HR)	Redrill (FT / HR)	Concrete	Grout (CU.YD.)	Concrete (CU.YD.)	Concrete (CU.YD.)	Volume (CU.YD.)	Overbreak
08/24/94	*	DHD130A	185		13.30		13.91		08/25/94			45	43.2	4.2%
	_													

Total Drill Time = Average Penetration Rate =

13.30 Hours 13.91 Feet / Hour

Total Redrill Time = Average Penetration Rate ==

None

0" North / South X 0" East / West 27.82" 28.81"

Verticality Information
At Full Depth =
Chord North =
S-ARC South =

Quality Coring: None.

PRODUCTION RATES

SUPERDRILL PRODUCTION RATES AT DIKE 1 FOR DIFFERENT MATERIALS (USING A DHD130A BIT)

ROCK TYPE	STRENGTH (PSI)	AVG. DRILLING RATE (Ft./Hr)
SANDSTONE (Sylamore)	Range (7,142–26,938) Avg. 12,800	Range (7,142–26,938) (with cluster bit rate increased Avg. 12,800
DOLOMITE AND CHERTY LIMESTONE	Range (1,632–27,378) Avg. 10,000	14
BROKEN & WEATHERED LIMESTONE		27 (Varies Greatly)
CONCRETE	Avg. 3,000	22